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PAPUA NEW GUINEA ECONOMIC UPDATE JANUARY 2021

Dealing with a Triple Crisis



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Preface and Acknowledgments

This publication is the sixth in the current series of Papua New Guinea Economic Updates (*PNG EU*). It has two principal aims. First, it analyzes the key recent developments in Papua New Guinea's economy and places these in a longer-term and global context. Based on these developments and recent policy changes, the *PNG EU* updates the outlook for the country's economy and the welfare of its citizens. Second, the *PNG EU* provides an in-depth examination of a selected development issue and evaluates the implications of recent trends and policy reforms in terms of the government's stated development objectives. It is intended for a broad audience, including policy makers, business leaders, and the community of analysts and professionals engaged in Papua New Guinea's evolving economy.

The *PNG EU* was compiled by the Macroeconomics, Trade and Investment Global Practice, under the guidance of Lars Moller (Practice Manager) and Stefano Mocci (Country Manager). The core economic team comprises Ilyas Sarsenov, John Grinyer, and Rashad Hasanov. The special focus section on institutional capital was prepared by Virginia Horscroft, David Craig, Doug Porter, George Bopi, Nao Badu, Kerenssa Kay, Donna Andrews, Andrew Ragatz, Ryoko Tomita, Kenglin Lai, Aneesa Arur, Rochelle Eng, Alan Cairns, Matthew Dornan, Eric Blackburn, Noroarisoa Rabefaniraka, Satoshi Ogita, Hedwig Kembek, Allan Tobalbal Oliver, Viet Anh Nguyen, Vishesh Agarwal, and Boer Xia. The team would like to acknowledge contributions provided by Ekaterine Vashakmadze, Maham Faisal Khan, Katia D'Hulster, and Wilfred Lus. Michelle Lee and Rachel Leka provided administrative support. Bronwen Brown edited the text. Dissemination is organized by Tom Perry, Hamish Wyatt, Ruth Moiam, and Helen Wagambie.

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Abbreviations and Acronyms

ADB	Asian Development Bank
BPNG	Bank of Papua New Guinea
CIT	Corporate income tax
CPIA	Country Policy and Institutional Assessment
CHW	Community health worker
DDA	District Development Authority
DoTI	Department of Transport and Infrastructure
DoW	Department of Works and Implementation
DSIP	District services improvement program
EAP	East Asia and Pacific region
GDP	Gross domestic product
GST	Goods and services tax
GTFS	Government Tuition Fee Subsidy
IMF	International Monetary Fund
IRC	Internal Revenue Commission
ITC	Infrastructure tax credit
LLG	Local level governments
LNG	Liquefied natural gas
LMIC	Lower-middle-income country
MP	Member of parliament
MMBtu	Million Metric British thermal units
NDoH	National Department of Health
NRA	National Roads Authority
NEC	National Executive Council
PHA	Provincial Health Authority
PIP	Public Investment Program
PNG	Papua New Guinea
PNG EU	Papua New Guinea Economic Update
PNG LNG	Papua New Guinea Liquefied Natural Gas Project
PIT	Personal income tax
PSIP	Provincial Services Improvement Program
SOE	State-owned enterprise
TFF	Tuition Fee Free
WGI	Worldwide Governance Indicators

Table of Contents

LIST OF FIGURES

LIST OF TABLES

LIST OF BOXES

Executive Summary

Economic Update and Special Focus

A. Economic Update: *Dealing with a Triple Crisis*

In 2020, Papua New Guinea faced three crises: the COVID-19 health emergency, an economic contraction, and political turmoil. Although the country largely avoided the health emergency experienced elsewhere, as of end-January 2021, Papua New Guinea had recorded more than 860 confirmed cases of COVID-19 and 9 deaths.[1] As a result of pandemic-related restrictions and weaker demand, it is estimated that real GDP contracted by 3.8 percent in 2020 (compared to a pre-crisis projection of 2.9 percent growth), and the fiscal deficit widened to 8.1 percent of GDP (3 percentage points larger than the pre-crisis projection). Consequently, the debt-to-GDP ratio surged to 49 percent (9 percentage points higher than the pre-crisis projection). At the same time, unemployment increased, affecting the most vulnerable households, including women and youth. On top of these new challenges, the government faced a political crisis, with a threatened no-confidence vote and delays in approving the 2021 National Budget.

Table 1. Key Macro-Fiscal Indicators, 2017–24

	2017	2018	2019 Est.	2020 Est.	2021	2022	2023	2024
					Projections*			
GDP growth (percent)	3.5	-0.3	5.9	-3.8	3.5	4.2	2.4	2.6
Resource sector	4.5	-3.7	9.3	-5.8	4.3	5.6	1.4	1.8
Non-resource economy	1.5	2.7	2.4	-0.2	1.1	2.0	2.5	2.6
Overall fiscal deficit (percent of GDP)	-2.5	-2.6	-5.0	-8.1	-7.3	-5.3	-3.2	-2.1
Public debt, net (percent of GDP)	35.9	36.6	39.5	49.0	52.2	53.3	54.3	54.0
Current account balance (percent of GDP)	23.8	23.5	22.2	23.8	14.5	9.3	3.8	4.0

Sources: PNG National Statistical Office; World Bank staff estimates and projections.
Note: *A sizable rebound in 2021–22 will be driven by the resource sector, which is expected to grow slower in 2023–24.

Despite a rapid launch of the emergency health and economic support program, legal and funding issues slowed its implementation. In April 2020, the government announced an anti-crisis program of PGK 1.8 billion (about US$500 million, or 2.2 percent of GDP), comprising budget and off-budget funding. By the end of October 2020, only 74 percent of the fiscal stimulus program has been warranted. The lack of formal safety net programs constrained government support to poor households. Cash constraints—due to reduced domestic revenue (as discussed in Part B) and backloaded external support from development partners[2]—slowed the implementation of health and economic relief measures initially. The government focused on securing foreign grants and loan support and amended the Central Banking Act to tap into domestically available funding at the Bank of Papua New Guinea (BPNG). Budget support provided by the Government of Australia and the Asian Development Bank (ADB) led to an increase in international reserves at the end of 2020, affecting the pace of exchange rate adjustment.

Considering that the economy entered the COVID-19 crisis with a poor record of resilience to external shocks, strengthening macroeconomic management and accelerating structural reforms will be vital. Economic growth is expected to rebound to about 3.5 percent in 2021–22, but the economy will be 9 percent smaller in 2023 compared to our pre-pandemic forecast. Risks to the outlook are firmly weighted to the downside. The main risks include the possibility that the COVID-19 pandemic lingers and has an enduring economic impact. For more inclusive and sustainable development over the medium term, the authorities will need to ensure that frontline health services continue to deliver during the crisis, introduce safety nets for the poor and vulnerable, support firms and employment in the informal sector, and strengthen the macroeconomic policy framework, including a renewed focus on fiscal consolidation. Strengthening and investing in key institutions that deliver basic public services, especially during crises, will be vital, as discussed in a special focus section of this report.

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[1] Data from the National Department of Health (https://covid19.info.gov.pg/).

[2] Except for the International Monetary Fund (IMF), which disbursed a Rapid Credit Facility loan in June 2020.

B. Special Focus: *Institutional Capital for Public Service Delivery*

The delivery of basic services in Papua New Guinea is extraordinarily challenging. The population is highly dispersed and fragmented, as a result of the mountainous and archipelagic geography, low urbanization rate, high ethno-linguistic diversity, and social identities that are primarily small-scale. Papua New Guinea shares the political economy characteristics of resource-rich states. These combine with Papua New Guinea's political structures and small-scale social identities to yield a political system and state that is increasingly dominated by patron-client relationships. In this context, it is very challenging for the state to be able to provide its population with basic services such as order and justice, education, health and roads. To understand how it does so, and why it is more successful in some areas than in others, requires an understanding of the capabilities of the institutions involved.

This special focus section uses an *institutional capital* framework to examine how Papua New Guinea's institutions actually work and their existing capabilities. The approach recognizes that the capabilities that institutions have are a product not only of factors internal to institutions, but also of factors in the broader social, economic, geographic, and political context. The section focuses on institutions that provide basic services—village courts, education, health, and roads—and institutions that collect public revenues to fund these basic services. It provides a stocktaking of institutional capital in these sectors and analyzes key resilience factors and opportunities, and key vulnerabilities and constraints, in each sector.

The analysis shows that the capability to deliver basic services depends on how effectively different state and non-state institutions come together to jointly provide the services. No single scale or type of institution—state or non-state—has the requisite capabilities alone. Only through joint efforts can the capabilities required for service delivery in this extraordinarily challenging context be mobilized. The analysis shows that institutional capital is weakest where these partnerships are weak or absent. This tends to be more the case where: the service requires significant amounts of capital spending, or significant amounts of non-salary recurrent spending controlled centrally by a single institution; the political value of the service can be gained even if the service is provided only to a narrow set of beneficiaries; the service is complex; local-level partnerships are vulnerable to the intrusion of patron-client relationships from higher tiers of government; or there is a large divergence between the rules coming from the different institutions jointly providing the service.

Key recommendations for policy makers, development partners, and other stakeholders include:

- In **revenue**, donors should continue to support Papua New Guinea to access to the global expertise needed to negotiate and implement agreements that secure a proper share of natural resource proceeds for consolidated revenue, even though political economy dynamics work against such outcomes.
- In **basic order and justice**, government should make the modest investments required to increase the village court system's coverage in urban settlements and to increase the representation of women magistrates. These changes are partly implemented, but the funds to complete them are outstanding.
- In **basic education**, the priority should be to protect and raise the importance and authority of local school boards, to further strengthen local ownership and accountability for basic education.
- In **basic health**, government needs to reduce the sector's vulnerability to fiscal volatility, especially for church health providers, which has been starkly illustrated during the COVID-19 health emergency covered in Part A. Provincial Health Authorities should be supported to establish and maintain effective partnerships with institutions across the health sector, to address institutional fragmentation.
- In **roads**, at the national level, donors should take measures to safeguard funding for maintenance work in roads investments. At the subnational level, there is the opportunity to build on function grants for road maintenance, and substantially increase the incentives for maintenance, by providing results-based grants to provinces that successfully maintain provincial and local roads.

Part A

Economic update

Dealing with a Triple Crisis

Papua New Guinea practices COVID-19 prevention. Photo: Parrotfish Journey/Shutterstock.com.

1. Recent economic developments

1.1. Economic growth

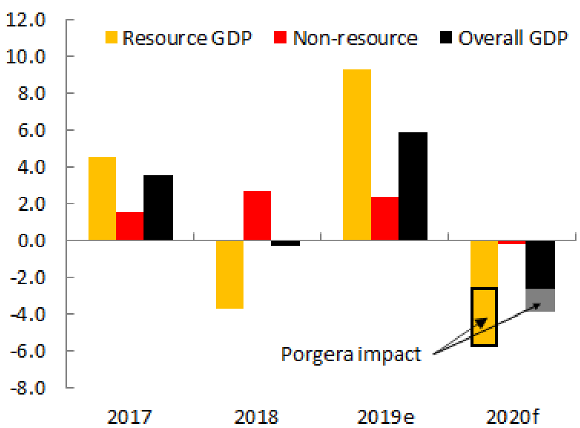
1. **The COVID-19 pandemic has spurred a global recession surpassed only by the two World Wars and the Great Depression.** The global economy has started growing again since the last quarter of 2020, led by Asia (mainly China and Vietnam), but the pandemic is expected to keep economic activity and incomes below their pre-pandemic levels for a prolonged period. The easing of lockdowns after the first wave supported a recovery in economic activity. However, a second wave—corresponding with the northern hemisphere's winter and the emergence of more contagious strains in Europe, Brazil, and South Africa—has caused a resurgence of cases and the reimposition of restrictions in many economies. The World Bank estimates that global economic growth contracted by 4.3 percent in 2020, compared to a pre-pandemic forecast of 2.5 percent growth, while global investment is estimated to have fallen by about 5 percent (World Bank 2021).

2. **Papua New Guinea's economy has been hit by weaker external demand and less favorable terms of trade due to the global pandemic.** The World Bank estimates that real GDP contracted by 3.8 percent in 2020, driven mainly by a sharp decline in the resource sectors (Figure 1). With Papua New Guinea not being dependent on inflows from tourism or remittances, international trade has been the most significant external transmission channel for the pandemic. Papua New Guinea's main trading partners—Australia, China, and Japan—saw a slowdown in their GDP growth prospects (Figure 2), with negative implications for PNG's

overwhelmingly commodity-based export basket. Although prices for gold, copper, palm oil, timber, and coffee have all risen over the past 12 months, large falls in prices for liquefied natural gas (LNG) and crude oil have pushed down PNG's overall export prices. Together, these negative volume and price effects have led to a substantial fall in export revenue, with negative implications for aggregate demand.

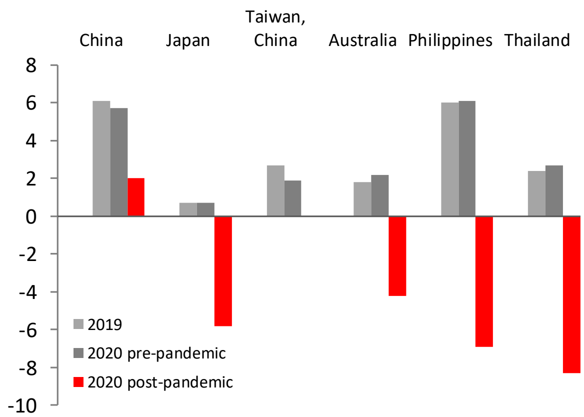
3. **On the supply side, both pandemic and non-pandemic issues constrained output.** Weaker external demand and disruptions due to the March–April lockdown contributed to falls in the production of palm oil (-5.8 percent year on year), hard logs (-13 percent), marine products (-8 percent), and coffee (-30 percent). The closure of many businesses during the country's 6-week lockdown negatively impacted the service sector. Meanwhile, the Porgera gold mine in Enga province has been closed and is under maintenance—halting production—since April 25, 2020, as discussions on its future take place (Box 1). The mine produced just 5.7 tons of gold in 2020 (before the closure), a 70-percent decline from the 18.6 tons produced in 2019. The shutdown is estimated to have reduced GDP by 1.5 percentage points in 2020. Combined with the temporary closure of the Ok Tedi mine (as a COVID-19 prevention measure), gold export volumes fell by 24 percent year on year in the first half of 2020. While gold prices hit record highs, Papua New Guinea did not benefit from production increases or higher government revenues due to these issues.

Figure 1. PNG's Real GDP Growth, 2017–20
(Annual percent change)



Sources: PNG National Statistical Office; World Bank staff estimates.

Figure 2. Trading Partners' GDP Growth, 2019–20
(Annual percent change)



Sources: World Bank Global Economic Prospects; IMF World Economic Outlook.

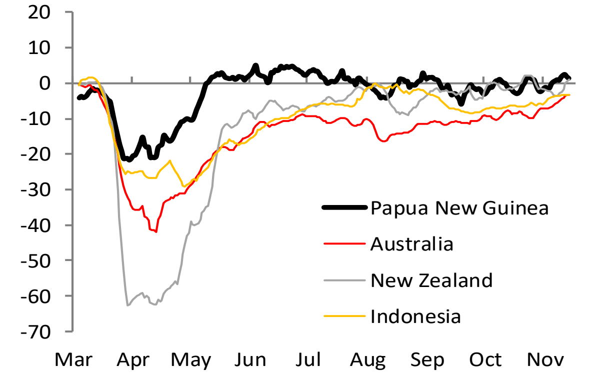
4. **Available data suggest a significant downturn in the non-resource economy in 2020.** Data for the first half of 2020 show a decline in most indicators, including employment, goods and services tax (GST) collections, and non-mineral exports (Table 2). The financial, business, and other services sectors experienced the largest falls in employment, declining by 14 percent; manufacturing employment rose by 5 percent (not enough to offset the overall fall in employment). Collections of GST fell by 5.9 percent year on year in the first half of 2020, and non-resource exports were down 5.6 percent, reflecting declines in both prices and volumes. Mobility data provided by Facebook (using cell phone GPS information) show a 16 percent reduction in people's movements during the March 24–May 4 lockdown period (Figure 3). While this reflects lower economic activity, the fall in movement is considerably less than that seen in other countries in the region during this period. Overall, non-resource GDP is estimated to have declined by 0.2 percent in 2020 (3.3 percentage points lower than the pre-pandemic forecast), the first and significant contraction since 2015.

Table 2. Other Indicators of Economic Activity
(Annual percent change)

	H1 2020
Growth compared to H1 2019	
Non-mineral exports	-5.6
Formal sector employment	-4.0
GST Collections	-5.9
Credit to non-extractive businesses and households	+2.7
Growth compared to Q1–Q3 2019	
Imports from China (US$ value)	+13.3
Imports from Australia (US$ value)	-19.0

Sources: Bank of Papua New Guinea; China Customs; PNG Treasury.

Figure 3. Human Mobility During the Pandemic
(Percent change compared to before pandemic)

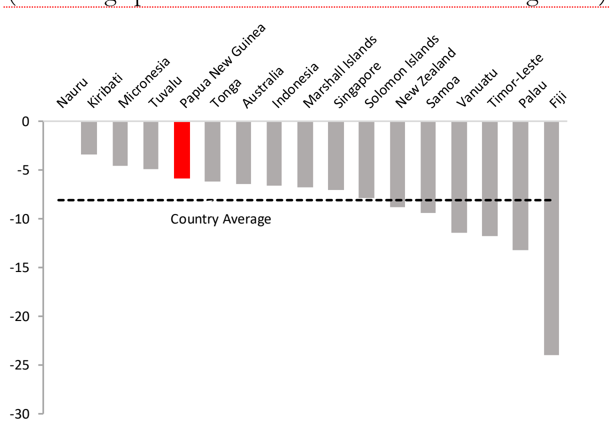


Source: Facebook Movement Range Maps (https://dataforgood.fb.com/tools/movement-range-maps/).

5. **The pandemic is causing volatility in commodity prices, with gold prices rising and LNG prices falling.** Gold prices surged 27 percent year on year in 2020 to record-high levels. Meanwhile, as detailed in the previous PNG Economic Update (World Bank 2020d, Box 2), falling oil prices have finally caught up with PNG's flagship liquified natural gas project, with LNG prices received falling to US$4.20 per million metric British thermal units (MMBtu) in the third quarter of 2020, down from US$9.40 a year earlier. Although this will impact on the profitability of the PNG LNG project, the decline in LNG prices is unlikely to have any large fiscal impact on Papua New Guinea, as production will remain at full capacity and its contribution to government revenues is relatively small (0.9 percent of GDP in 2017). As such, any decline in LNG prices is not expected to have a significant impact on government finances.

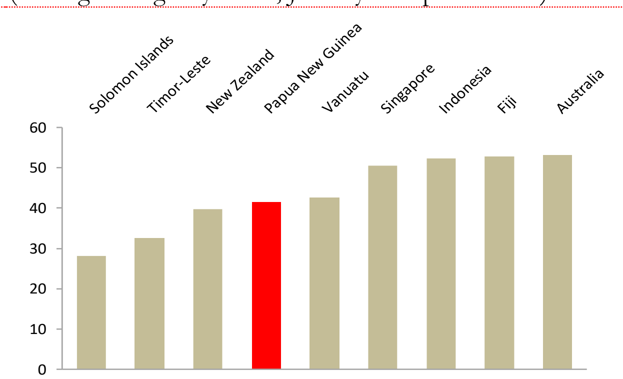
6. **Relatively, the impact of the pandemic on Papua New Guinea was not as bad, compared to many other regional economies.** Like some other relatively isolated economies in the Pacific region, Papua New Guinea is likely to see a smaller growth impact than its more-open neighbors (Figure 4). Tourism-based economies (such as Fiji and Palau) have been hit worst, while economies with the strictest lockdowns also suffered. So far, Papua New Guinea's economy has proven to be relatively resilient to the pandemic—tourism is small, demand for gold is high, and LNG production has been largely unaffected. Meanwhile, although PNG's lockdown was not as severe as elsewhere (Figure 5), it had a significant impact on the non-resource economy, as described above.

Figure 4. EAP Downgrades in 2020 Growth
(Percentage point difference in forecast real GDP growth)



EAP = East Asia and Pacific
Source: IMF World Economic Outlook database.

Figure 5. Average Severity of Pandemic Restrictions
(Average stringency index, January 1–September 30)



Source: Oxford Covid-19 Government Response Tracker (https://covidtracker.bsg.ox.ac.uk/).

Box 1. Implications of Porgera mine's closure
The estimated impact on government revenue

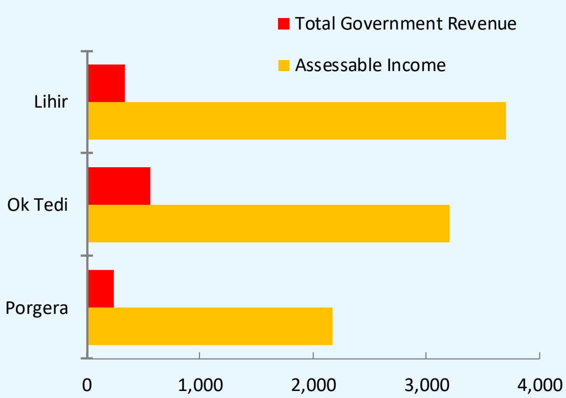
The Government of Papua New Guinea entered negotiations with Canada's Barrick Gold and China's state-owned Zijin Mining in April 2020 on renewing the mining lease for the Porgera gold mine. In 2019, Porgera was the second most productive gold mine in the country, producing 18.6 tons and generating US$326 million in profits (earnings before interest, taxes, depreciation, and amortization).

In 2017, the Extractive Industries Transparency Initiative, which publishes the most detailed information on PNG's mining sector, estimated the 'take' from Porgera (the proportion of the profits that goes to the state) at around 11 percent in 2016, higher than for the Lihir mine (9 percent) but lower than the state-owned Ok Tedi mine (17.5 percent). These numbers—which are only approximations and date from 2017 when gold prices were 27 percent lower than in 2020—give a sense of the calculations underpinning the ongoing negotiations.

Production at Porgera has been suspended since April 2020, costing the government roughly US$3 million per month in lost revenue (roughly 1 percent of total revenue). In a joint statement from the government and Barrick in late 2020, the parties announced their agreement in principle to reopen Porgera, ending a period of uncertainty. Although the exact date of reopening is not clear yet, if Porgera reopened in early 2021, the government would have foregone around US$24-36 million in revenue. The benefits of this loss are a higher take into the future. Assuming that the new take equals that of Ok Tedi (17.5 percent), then revenues will rise to around $4.8 million per month based on forecast gold prices and Barrick's production cost estimates. In this scenario, the government would break even by April 2022.

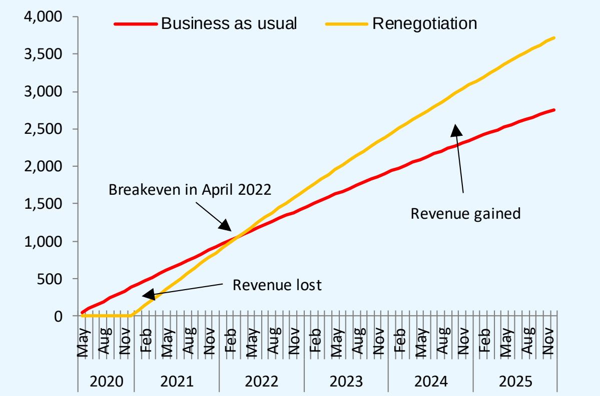
Of course, there are other costs involved—for example, retrenched mine workers' lost incomes and the cost of any future equity investment in Porgera by the government to ensure a higher take. Moreover, many service providers have been impacted negatively by the Porgera closure as well. Nevertheless, while these calculations are simplistic approximations, they shed light on the revenue arithmetic behind renegotiating mining contracts.

Comparison of Assessable Income and State Revenue Received by Project, 2017
(US$, millions)

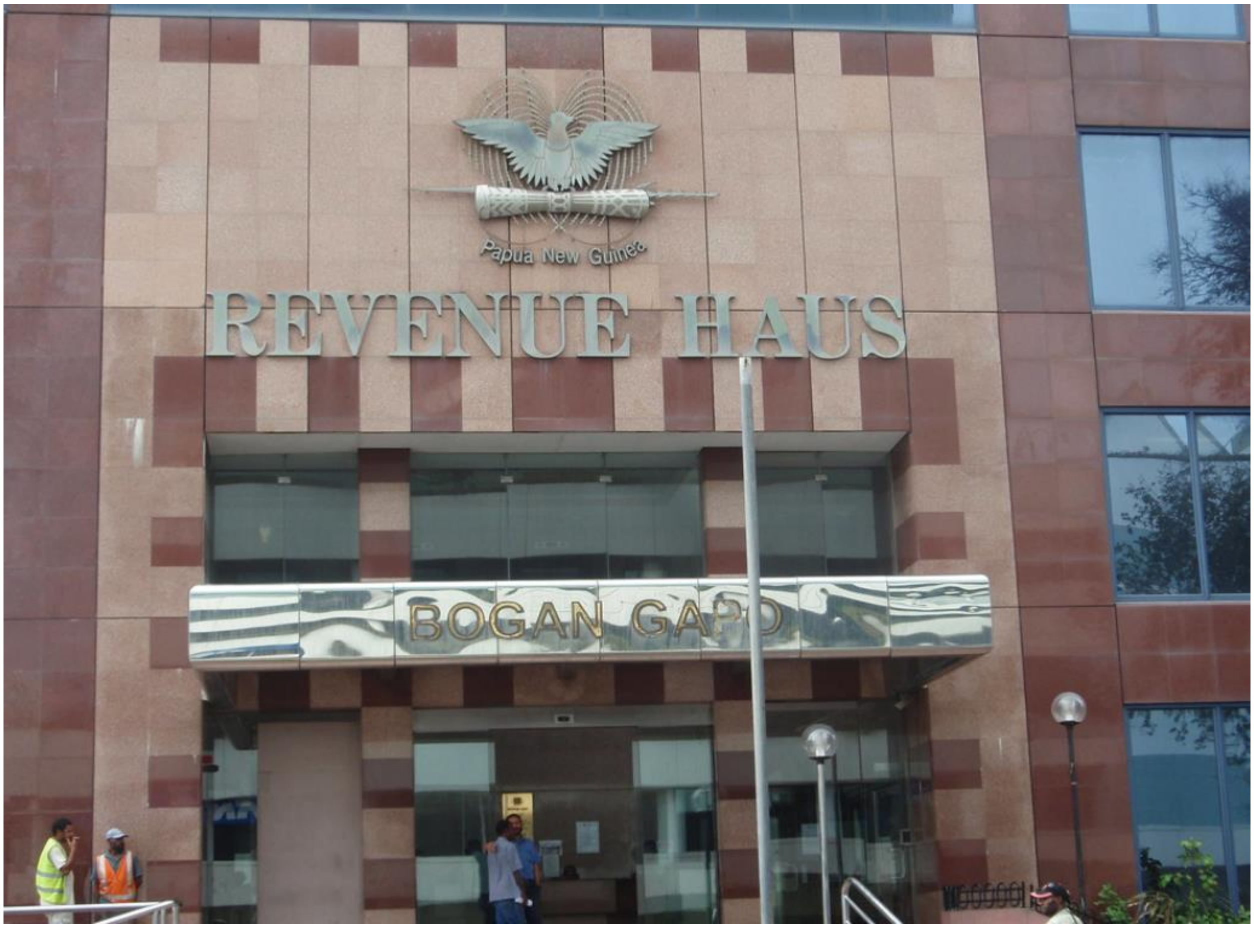


Source: Extractive Industries Transparency Initiative.

Porgera's Estimated Government Revenues Under Different Scenarios
(US$, millions)



Source: World Bank staff calculations.



The COVID-19 crisis has led to a sharp reduction in government revenue. Photo: EMTV Online.

1.2. Fiscal developments

7. **The government forecast that the COVID-19 crisis will lead to a record-high fiscal deficit in 2020.** The overall deficit was 5.0 percent of GDP in the first six months of 2020 (up from 3.9 percent in the year-earlier period). This annualized figure compares to a pre-pandemic planned deficit of 5.1 percent. Following a Supplementary budget in September 2020, the latest government projections are for the 2020 deficit to reach 8.1 percent of GDP, a record high for the country. Because spending is typically higher in the second half of the year as capital spending accelerates, the deficit may reach this level, but this will depend on whether capital investment accelerated as planned (the government executed less than one-quarter of its 2020 investment budget in the first half of the year).

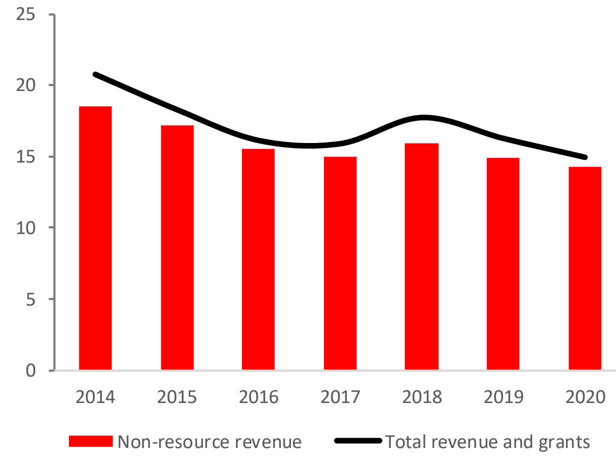
8. **Domestic revenues are estimated to have fallen for the year.** Revenues fell by just 3.3 percent year on year in the first half of 2020, with tax revenue down 0.2 percent—a smaller decline than in neighboring countries (Table 3). Most of the drop was due to lower GST collections, unsurprising given the lockdown during the period. Income taxes were broadly flat; customs duties increased slightly. No grants from development partners were recorded in the first half of 2020, leaving a large hole in revenues. The authorities reported that this was due to the delays caused by the repackaging of donor support as COVID-19 relief funding. The authorities expected to receive PGK 932 million (1 percent of GDP) in grants in the second half of the year. Looking at the bigger picture, revenues have been declining steadily since 2014. Non-resource taxes have driven this decline, falling from over 16 percent of GDP in 2014 to an estimated 11.5 percent of GDP in 2020 (Figure 6).

Table 3. Government Revenues, January–June 2020
(Annual percentage change)

	Change from H1 2019
Papua New Guinea	
Tax revenue	-0.2
Total domestic revenue	-3.3
Australia	
Tax revenue	-3.6
Total domestic revenue	-5.9
New Zealand	
Tax revenue	-3.3
Indonesia	
Total domestic revenue	-15.4

Sources: PNG Treasury; Australian Treasury; Statistics New Zealand; Ministry of Finance Indonesia.

Figure 6. Government Revenue in 2014–20
(Percent of GDP)



Sources: PNG Treasury; World Bank staff estimates.

9. **The government spending picture was mixed in 2020.** Recurrent expenditure was up 5.4 percent year on year in the first half of 2020, while capital spending was down 39 percent. The increase in recurrent spending was almost entirely at the provincial level. In 2019 spending in the provinces was 36 percent (PGK 779 million) lower than budgeted, and higher spending in 2020 may reflect the payment of outstanding invoices from 2019. Spending on personnel emoluments was up 10 percent compared with 2019, reflecting in part a 3-percent pay increase. On capital spending, major expenditure items in the first half of 2020 were on the Service Improvement Program (representing capital transfers to districts and provinces), the Waigani Court House, and investments in commercial agriculture through the State Equity Fund.

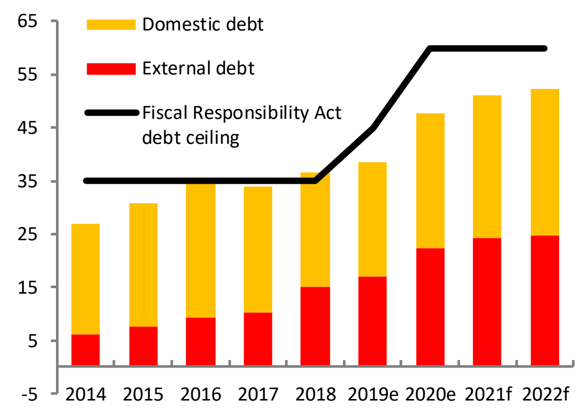
10. **Personnel emoluments continued to overspend.** The Supplementary budget estimated that the government required an additional PGK 90 million to cover public sector wages and salaries in 2020. The National Department of Health (NDoH), Hospital Management Services, and the provisional health authorities had all spent over 50 percent of their budget allocations by midyear, reflecting additional COVID-19–related spending. The National Department of Education and several provincial administrations also spent above 50 percent of their budgets in the first half of the year, suggesting that local administrations continue to struggle to keep within their budget ceilings.

11. **COVID-19–related emergency fiscal spending totaled PGK 444 million (0.5 percent of GDP) at the end of October.**[3] PNG's COVID-19 emergency response funding comprised two programs: health and security containment (PGK 280 million) and economic support programs (PGK 320 million). The largest spending areas were (i) through the District Development Agency Containment Fund in the provinces, and (ii) additional allocations to the NDoH. Tracking and adequately accounting for emergency spending programs is critical (see paragraph 15 in the previous PNG Economic Update). The authorities are working on publishing details of contracts awarded on the National Procurement Centre's website.[4] As part of the IMF Rapid Credit Facility loan, authorities have also committed to delivering a consolidated report to the National Executive Council within three months of the end of the State of Emergency and to conduct an independent audit within a year of all the emergency spending.

[3] This is much lower than fiscal stimulus programs initiated in the other EAP economies (World Bank 2020f) due to a very limited fiscal space available in Papua New Guinea.
[4] See http://www.procurement.gov.pg/covid-19-procurement/.

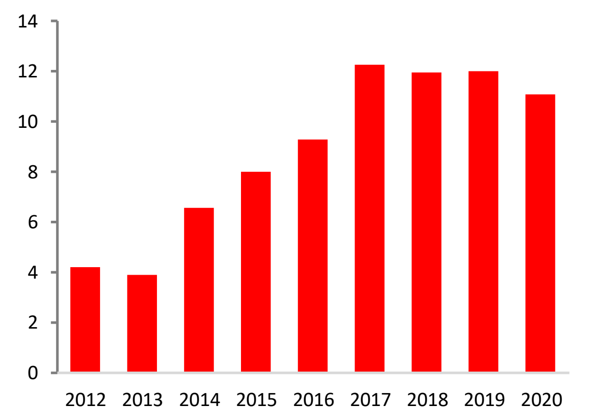
12. **Public debt is estimated to have reached 49 percent of GDP at end-2020 and is expected to continue climbing.** The most recent IMF–World Bank debt sustainability assessment raised Papua New Guinea's risk of debt distress from moderate to high. COVID-19 has deepened Papua New Guinea's challenges, but its increasing debt levels reflect previous years of overspending and further increase the urgency of key revenue reform. A recent due-diligence exercise conducted by the current government has also revealed substantial amounts of expenditure arrears accumulated by the previous administration, adding to the current level of public debt. The government amended the Fiscal Responsibility Act (in 2018, 2019 and 2020) to adjust the debt ceiling and accommodate expenditure arrears (Figure 7). Meanwhile, debt interest payments increased, doubling from less than 5 percent of spending in 2012–13 to over 11 percent in 2017–20 (Figure 8).

Figure 7. Government Debt in 2014–22
(Percent of GDP)



Sources: PNG Treasury; World Bank staff estimates.

Figure 8. Interest Payments in 2012–20
(Percent of spending)



Source: PNG Treasury.

13. **The 2021 budget plans for a large overall fiscal deficit.** If this deficit materializes, 2020 and 2021 would be record years for deficit spending, with an equivalent increase in government debt. The 2021 budget projects a partial revenue recovery from the COVID-19 shock, while recurrent expenditure will increase, and capital spending remains at 2020 levels. Interest payments will reach 2.5 percent of GDP; hence the primary deficit will be 4.8 percent of GDP. We estimate that the non-resource economy will operate at 3.1 percent below its potential level in 2021. As a result, the cyclically-adjusted primary deficit will reach 4.7 percent of GDP, which is significantly larger than previously seen and reflects the government's desire to support the economy with additional spending (Figure 9). However, the fiscal stance for the 2021 budget is negative, indicating that, on paper, the 2021 budget provides a smaller stimulus than the highly expansionary Supplementary budget for 2020 (Table 4).

Table 4. Key Government Budget Parameters, 2020 and 2021
(Percent of GDP)

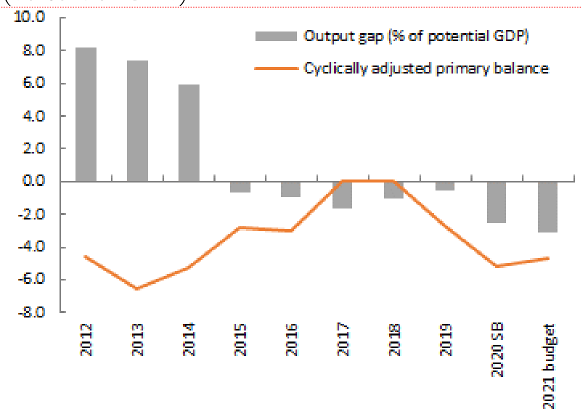
	Revenue and grants	Expenditure	Deficit	Cyclically adjusted deficit	Fiscal stance*
Original budget 2020	15.4	18.8	-3.4	-3.4	-1.6
Supplementary budget 2020	14.9	23.0	-8.1	-7.7	+2.7
Original budget 2021	14.4	21.7	-7.3	-6.9	-0.7

Sources: PNG Treasury; World Bank staff estimates.
Note: * a positive fiscal stance indicates an expansionary budget; negative indicates contractionary.

14. **An analysis of the 2021 Public Investment Program shows a large decrease in planned investment in the health sector.** The government maintains a Public Investment Program (PIP), which is published as Volume 3 of the annual budget. The 2021 PIP plans spending of PGK 6 billion in 2021, with the largest projects being in road construction and maintenance.[5] In the health sector, the 2020 PIP planned for PGK 4.9 billion in spending over the next 5 years, but this has been cut to PGK 1.7 billion in the 2021 PIP, despite the establishment of 17 provincial health authorities.

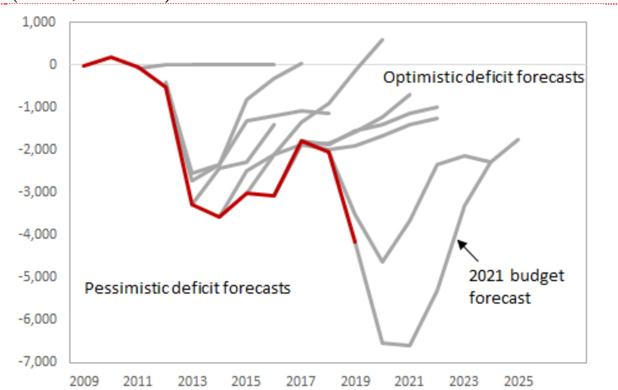
15. **Papua New Guinea's budget forecasts tend to be optimistic, but that may not be the case this time**. Government deficits are typically larger than initial projections (Figure 10). This "optimism bias"—whereby governments systematically overforecast revenues and underforecast spending—is common to many economies. However, the forecasts in the 2021 budget show sizeable deficits for 2020 and 2021. Given the relatively benign fiscal outturn in the first half of 2020, it may be that Papua New Guinea's budget deficit will be smaller than forecast for the first time.

Figure 9. Output Gap and Primary Balance, 2012–21
(Percent of GDP)



Source: PNG Treasury; World Bank staff estimates.

Figure 10. Budget Deficit Forecasts
(PGK, millions)



Source: Volume 1 of the Annual Budget, various years.

[5] These projects include the Keltiga Junction to Kagamuga Airport road widening, the Highlands Highway Rehabilitation Programme, the Highlands Region Roads Improvement Program, and the Rural Bridge Program, which together account for 4 percent of PIP spending.

Box 2. **The functional allocation of the government budget**
Where does the money go?

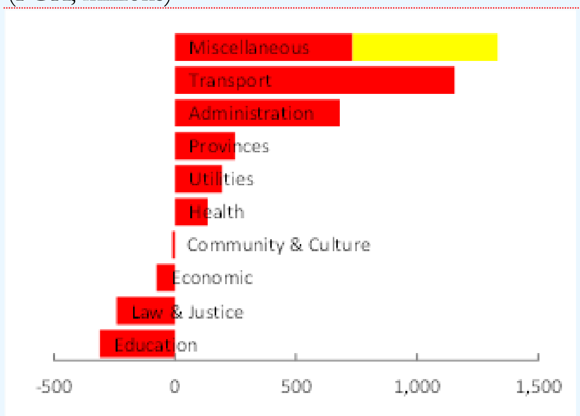
The 2021 budget was presented against a fraught political backdrop in November 2020. The annual budget provides a useful pointer to a government's spending priorities – whilst a budget speech may highlight the great work the government plans to do in green energy and child health, the numbers may paint a different picture—which areas see an increase in spending, and which a decline?

The government has been making progress in presenting spending along functional lines—health, education, transport etc.—with the 2016 budget being the first to classify spending in this manner (see Volume 1 Table 12 in the annual budget). The categories match those in the second Medium-Term Development Plan which are different from the international COFOG standard[6] but are good enough to see where the money is going.

As figure below shows, the largest area of increase in the 2021 budget is 'miscellaneous' which includes a PGK 600 million allocation for the COVID-19 relief (shaded yellow), but also includes payments to settle various liabilities, including payment arrears (PGK 700 million), severance payments to civil servants who are still working but are over the age of 65 (PGK 430 million), payments to superannuation funds (PGK 309 million) and various other payments. In total, the 'miscellaneous' category amounts to PGK 3,136 million or 16 percent of total planned spending. Transport sees the second largest increase, this is largely capital spending on flagship road projects, including the Highlands Highway and the rural bridge program. Law and Justice (which includes the police) and Education see a shrinking allocation, with both seeing declines in their operational budgets (salaries, and goods and services)—this is partly down to an attempt to constrain spending, but with the number of school age children increasing by 1.1 percent a year, these cuts may not prove possible.

The functional allocation of PNG's spending deserves more attention, it is not just how much to spend and how much debt incurs that is important, where the money goes should also be scrutinized.

Changes in sectoral spending between 2020 and 2021 budgets
(PGK, millions)



Source: Volume 1 of the Annual Budget, various years.

[6] Classification of the Functions of Government (https://unstats.un.org/unsd/classifications/Family/Detail/4).

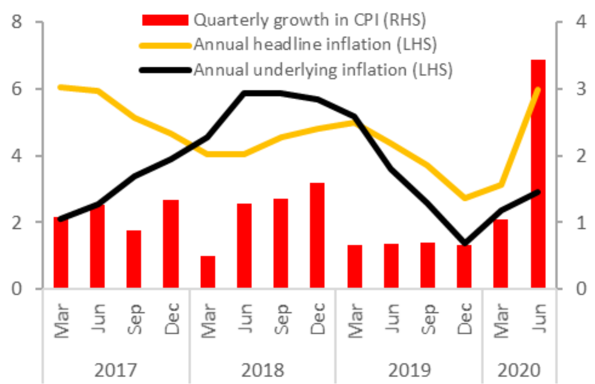
A group of men selling and consuming betel nuts (areca nuts) at a street stall outside Port Moresby.
Photo: The Road Provides/Shutterstock.com.

1.3. Monetary policy and price developments

16. **Annual headline inflation jumped from 3.5 percent in March to 6 percent in June 2020 (Figure 11), primarily driven by a sharp increase in betel nut prices.** The latter recorded quarterly inflation of 16.5 percent, adding 3 percentage points to overall inflation (Figure 12). Despite pandemic-related disruptions to supply chains and reduced agricultural production, food prices rose only modestly (2.7 percent in the second quarter of 2020).[7] Fruit and vegetable inflation increased by 3.7 percent in the second quarter of 2020. During the reference period, the health category also recorded a large price increase (6.1 percent), reflecting surging demand for pandemic-related health products such as face masks and other personal protective equipment. Transport prices also rose (8 percent), reflecting increased transport fares, particularly for public transportation and taxi services. In contrast, categories affected by lockdown measures and overall sluggish domestic economic conditions (housing, clothing and footwear, education, household equipment) declined in the second quarter of 2020. Despite the uptick in headline inflation, annual growth in underlying inflation that excludes seasonal and price-controlled items stood at 2.9 percent.

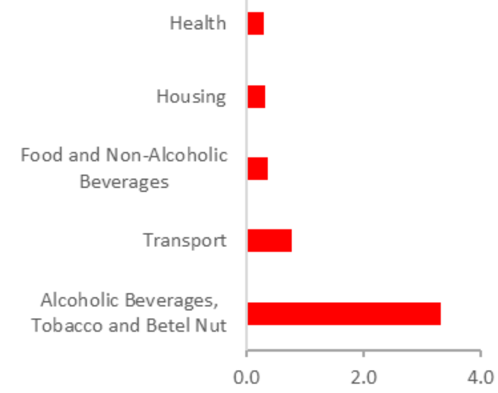
[7] This might reflect an important effect on households. For instance, loss of households' incomes due to rising unemployment have led to food insecurity in countries globally, including in advanced economies.

Figure 11. Consumer Price Inflation
(Percentage change)



Source: PNG National Statistics Office.

Figure 12. Contribution to Total CPI in June 2020
(Quarterly CPI Index points, June)



Source: PNG National Statistics Office.

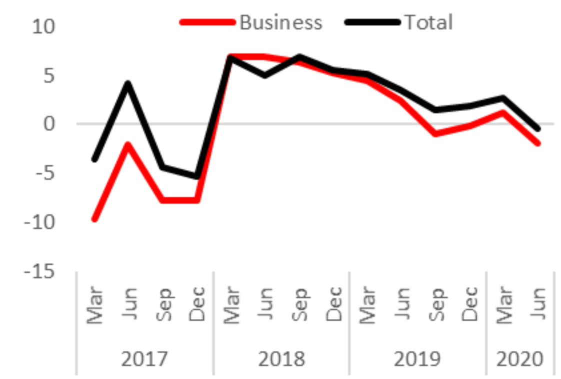
17. **The broad money supply increased by 7.2 percent in the year to June 2020.** The upswing in money supply is due to an increase in private sector credit and net claims on the central government as the Bank of Papua New Guinea (BPNG, the central bank) continued monetizing the fiscal deficit through the purchase of COVID-19 bonds and other domestic debt instruments. With amendments to the Fiscal Responsibility Act and the Central Banking Act, government debt financing is forecast to continue in the short term. On the other hand, the increase in private sector credit reflects the use of overdraft facilities by firms to maintain their operations during the economic downturn.

18. **Business access to finance is a major impediment to private sector growth.** Although credit from commercial banks to businesses contracted by 2 percent in the second quarter of 2020, the year-on-year decline was negligible (Figure 13). Advances to manufacturing, transport, and hotels and restaurants recorded major contractions. On the other hand, lending to businesses in the construction and agriculture sectors increased substantially compared to a year earlier. A recent PNG Business Pulse Survey—sanctioned by the Governor of the BPNG to assess the impact of lockdown measures on micro, small, and medium-size enterprises—found that 35 percent of respondents were aware of government stimulus measures. Just 5 percent of respondents had applied for government support and credit assistance from financial institutions. Many business owners also claimed that they did not benefit from the loan repayment holiday.

19. **Addressing structural challenges in the financial sector is crucial for the country to recover from the pandemic and build resilience to withstand future economic shocks.** Many factors—high informality, limited competition, poor financial literacy[8]—limit businesses' access to finance and make borrowing expensive. Papua New Guinea's interest rate spreads are high: the average interest rate on loans stood at 7.8 percent in June, while the deposit rate was just 0.9 percent. Greater competition in the banking sector would help to lower these interest rate spreads.

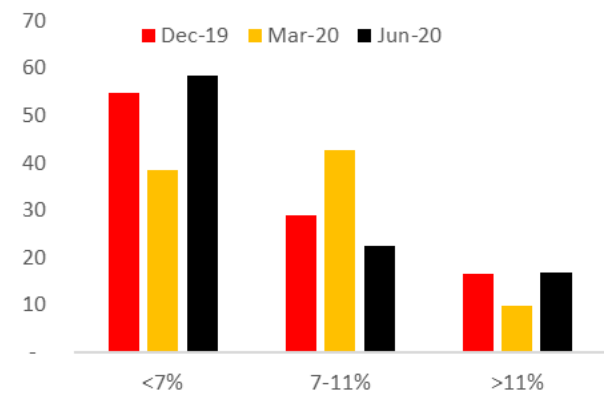
[8] These issues are widely discussed in the January 2019 edition of this publication.

Figure 13. Commercial Bank Lending
(Percent)



Source: Bank of Papua New Guinea.

Figure 14. Advances Classified by Interest Rate
(Percent)



Source: Bank of Papua New Guinea.

20. **The BPNG announced a series of policy measures to ensure adequate liquidity in the financial system and to support the flow of financial resources to the real sector.** These measures included a reduction in the key policy rate—the Kina Facility Rate—lowering reserve requirements, and repurchasing of government securities in the secondary market (a quantitative easing program). Reducing the cash reserve requirement and implementing the quantitative easing program injected additional liquidity of around PGK 1.4 billion (US$400 million) into the banking system. In response to the financial institutions' agreement to provide a temporary loan repayment holiday, the BPNG suspended loan-loss provisioning for the affected loans. According to the latest figures from the BPNG, an estimated PGK 1.8 billion in loans have benefitted from the repayment moratorium.

21. **The government amended the Superannuation Act and the Central Banking Act in September 2020.** The Superannuation Act was amended to allow employees to access their savings during the economic downturn. Members directly affected by COVID-19 were entitled to a one-off payment of 20 percent of their own contribution, up to a maximum of PGK 10,000. The Central Banking Act was amended to raise the limit for the Temporary Advance Facility (TAF; Box 3). The government views the amendment to the Central Banking Act as a necessary step to ensure sufficient cashflow, noting that the temporary advance must be repaid at the end of the year, as required by the IMF's Staff-Monitored Program.

22. **The announced policy measures are commendable steps in ensuring financial and monetary stability in Papua New Guinea, but their monitoring will be as important as their introduction.** Before the pandemic, the banking sector was stable and profitable with ample liquidity. The sector remains well capitalized with an overall Tier 1 capital ratio of 30.1 percent and a nonperforming loan ratio of 5 percent.[9] The Bank of the South Pacific, one of the country's major banks with important cross border operations in the region, remained profitable and well-capitalized in 2020 with a Tier 1 ratio of 16 percent as at 30 June 2020, down from 19.5 percent at the end of 2019. Policy makers should continue monitoring the financial sector's resilience and keep a close watch on banks' and non-banks lender asset quality and loan remediation processes. Once the temporary borrower support arrangements come to an end and government financial assistance measures phase out, it is likely that nonperforming loans will increase further. Despite injecting additional liquidity into the banking system, business lending has dropped while credit to households remained flat in the

[9] Latest data available from the IMF Financial Soundness Indictors database. More background and comments on financial sector resilience are available in the WB Policy Brief "Financial Stability Impact of Covid-19 on Pacific Island Countries" to be published soon.

second quarter. The PNG Business Pulse Survey concluded that loan applications' stringent requirements kept firms from accessing credit to fund business activities during the lockdown period.

Box 3. Changes to the Central Banking Act
Considerations for cashflow management

In line with international practice, the Government of Papua New Guinea has a Temporary Advance Facility (TAF) from its central bank, BPNG. The TAF allows for temporary advances to the government to cover cash flow deficiencies resulting from revenue–expenditure mismatches. Restrictions on lending to the government are important for monetary policy stability and to preserve central bank independence. In practice, these restrictions may take different forms, including blanket prohibitions or quantity limits and may limit the lending activity to a specific purpose and financing maturity.

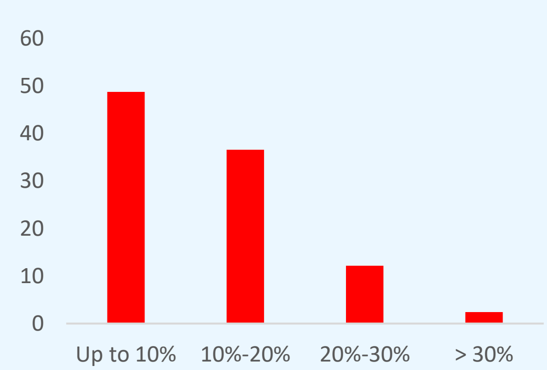
Papua New Guinea's parliament adopted changes to the Central Banking Act in September 2020. The amendments resulted in the following changes:

- The TAF's upper ceiling was changed from PGK 300 million to 12 percent of the annual average total revenue and grants receipts over the previous 3 years to the year in which advances are sought (an equivalent of about PGK 1,500 million currently). After adjusting for inflation and applying the actual revenue figures to calculate the new limit, the new BPNG lending limit is five times greater than the previous one.
- The maturity of lending was extended from 6 months before the amendment to 12 months from the date of the advance. The IMF's Staff-Monitored Programs requires TAF to be fully covered by the end of 2020.
- The BPNG can fund the government's fiscal deficit, which was prohibited previously.

The government justifies these changes with cash flow timing in the 2021 budget, arguing that PNG's TAF level is low compared to its peer economies. An IMF analysis of limits on central bank lending to government in 150 economies suggests that a common practice for TAF not to exceed 8 percent of total revenue. The PNG case goes above the general practice.

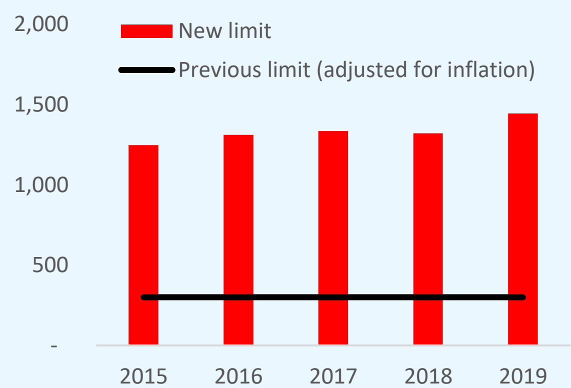
While similar amendments help to ensure better management of cashflow, increasing the lending limit to the government carries the risk of increasing potential exposure of the BPNG to future political pressure to monetize the deficit, leading to fiscal dominance. Careful vigilance will be required. The academic literature on the macroeconomic and institutional implications of central bank lending to government concludes that similar amendments may lead to reduced political and operational autonomy of central banks. The review of the related literature also suggests that relaxing restrictions on lending to government may disrupt a central bank's objective of preserving price stability (Matamoros-Indorf, et al., 2012).

Limits on Central Bank Lending to Government
(Percent of revenues)



Source: Matomoros-Indorf, et al. 2012.

New and Previous Limits on Central Bank Lending
(PGK, millions)



Source: Bank of Papua New Guinea.

Weak external demand and domestic supply issues in the resource sector have reduced Papua New Guinea's export volumes. Photo: Ian Geraint Jones/Shutterstock.com.

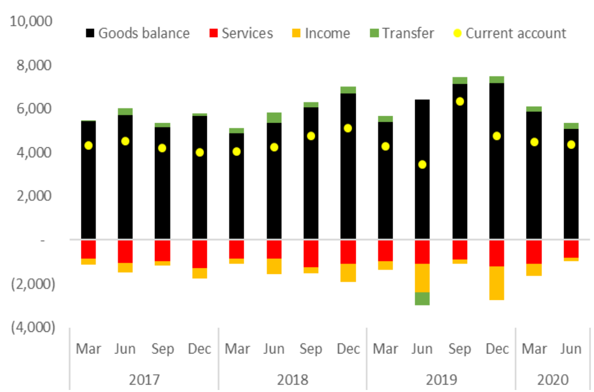
1.4. External sector

23. **The pandemic impacted Papua New Guinea's external sector via falling export earnings, but import compression and surging gold prices contained the damage.** The current account surplus widened in the first half of 2020, increasing by 14 percent year on year, supported by a strong merchandise trade performance (Figure 15). Although prices for major exports recorded substantial declines, earnings from the mining sector—notably, gold exports—sustained a sizeable trade surplus. Furthermore, continued import compression contributed to the overall current account surplus. Lower export earnings were more than offset by a 24 percent year-on-year decline in import spending in the first half of 2020. The services trade balance was negative during the period, influenced by negative balances on transport, education, and other business services. However, compared to the same period of 2019, the deficits in services and income narrowed. Together with a small increase in transfers, these developments propelled the current account further into positive territory.

24. **Export earnings fell 14.3 percent amid a slump in global demand and disruption to supply chains.** Prices of major exports have recorded a substantial drop since the start of the pandemic. Notably, export receipts from mineral resources, including LNG (down 15 percent year on year), crude oil (down 22 percent), and copper (down 18 percent), recorded large declines (Figure 16). The increase in the price of gold amid uncertainty surrounding the pandemic outweighed the negative impact of lower production due to the Porgera mine closure. As a result, total export earnings from gold rose by 9 percent year on year in June 2020.

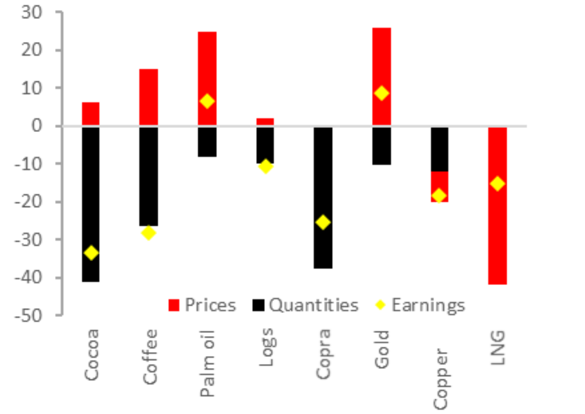
Agricultural commodity exports declined by 9.2 percent year on year, driven by lower export values for cocoa, coffee, and logs, and only partially offset by higher receipts from palm oil exports.

Figure 15. Current Account Balance Composition
(PGK, millions)



Source: Bank of Papua New Guinea.

Figure 16. Major Commodity Export Items
(Annual percent growth, June 2020)



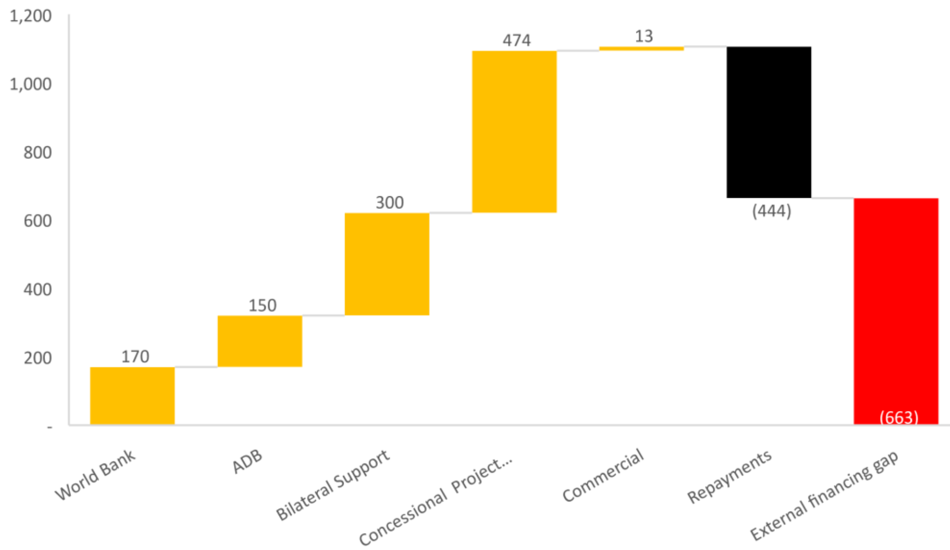
Source: Bank of Papua New Guinea.

25. **Import spending fell by 25 percent year on year in January–June 2020.** Significant variations in the various import categories' growth rates reflect the pandemic's impact on different sectors of the economy. For example, imports of chemicals tripled relative to the first half of 2019 to meet the demand for COVID-19 essential supplies, including disinfectants. In contrast, food, beverage, and machinery imports recorded large declines, reflecting slowing domestic economic activity. Import spending's downward trajectory reflects import compression, which tends to move in the same direction as gross international reserves in Papua New Guinea. Decoupling of the two series occurred in the second quarter of 2020, mainly due to external financing inflows under the IMF's US$363 million Rapid Credit Facility.

26. **The balance of payments recorded a small surplus in the first half of 2020, but the BPNG projects a full-year deficit of PGK 1.3 billion.** Outflows on the capital and financial account largely offset the current account surplus in the first half. The capital account recorded a deficit of nearly PGK 9 billion in January–June driven by continued financing commitments of key projects in the mineral sector and offshore dividend payments. This will remain a feature of PNG's external sector until the initial loan financing is paid off. Ongoing tensions with foreign investors coupled with implications of the pandemic on financial inflows may lead to deteriorating capital and financial account balance in the coming years.

27. **Reduced domestic economic activity combined with export losses drove an increase in the external financing requirement.** External financing, particularly assistance from development partners, has been instrumental in addressing budgetary and external financing gaps. Disbursement of US$363 million under the Rapid Credit Facility from the IMF, and external budget support from the ADB, the World Bank, and bilateral partners were major sources of external financing in 2020. The Supplementary budget increased the overall financing requirement in 2020 to PGK 6.6 billion, of which PGK 4.3 billion was expected to be financed from external sources. Similarly, the 2021 Budget implies a heavy reliance on external financing to close the fiscal gap (PGK 2.3 billion, including repayments). Potential sources of financing include budget support from the international agencies, the multilateral and bilateral partners (Figure 17). With a large interest rate differential on domestic and external financing (weighted average interest paid on external borrowing is 3.2 percent as opposed to 8.7 percent on domestic borrowing), the government is considering switching from domestic borrowing to reduce the interest payments.

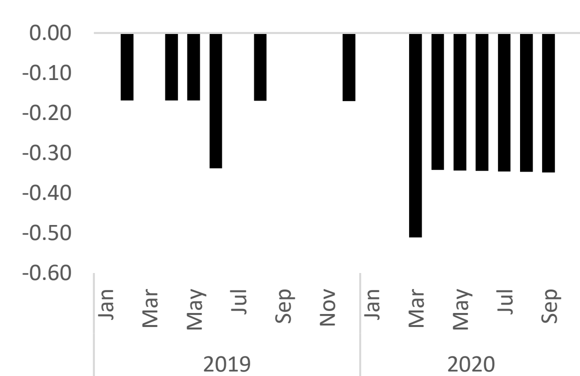
Figure 17. Composition of Financing by Instrument in 2021
(US$, millions)



Sources: PNG Treasury; World Bank staff estimates.

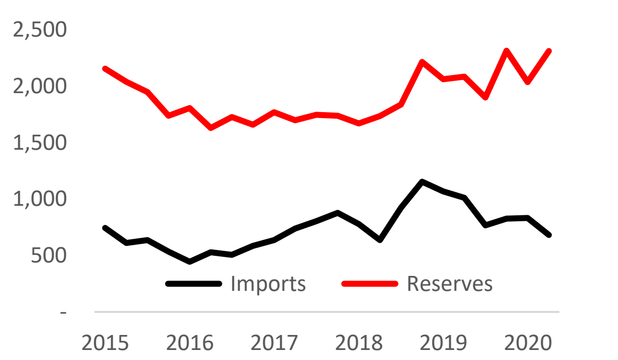
28. **Sourcing this external financing will provide the much-needed injection into foreign exchange reserves to ease the foreign exchange imbalance.** With limited domestic and external borrowing opportunities, both the fiscal and balance-of-payment financing gaps will likely need to be closed by a drawdown of reserves, which are already under pressure. The combination of reduced mineral sector inflows and higher demand for foreign currency to import medical supplies resulted in a reduction of foreign exchange reserves (from US$2.3 billion at the end of 2019 to under US$2 billion in May 2020). Reserves increased briefly following improved resources sector earnings and the inflow associated with the IMF's Rapid Credit Facility. However, a subsequent deterioration in the terms of trade and a drawdown of reserves brought the level of official reserves to just over US$2 billion at the end of October 2020, providing 5.5 months of import cover.

Figure 18. Currency Depreciation Rates in 2019 and 2020
(Percent change in average US$/PGK exchange rate)



Source: Bank of Papua New Guinea.

Figure 19. Imports Dynamics and Availability of International Reserves
(US$ millions)



Source: Bank of Papua New Guinea.

29. **The government's attempt to secure better deal for the country from mining projects continue to impact investor confidence and delay major mining projects.** The closure of the Porgera gold mine

since April 2020 due to non-renewal of the Special Mining Lease reduced PNG's gold production just as gold prices hit a record high. The mine produced 284,000 ounces of gold in 2019 at an all-in sustaining cost of US$1,003 per ounce. The operator estimated a 10.8 percent drop in its overall gold production in the third quarter of 2020 was due to the closure of the Porgera mine. In addition, delays related to other resource projects, including P'nyang and Wafu-Gopu are likely to shake investor confidence further, with knock-on effect on economic growth, employment, and loss of tax revenue and foreign reserves.

30. **There are some encouraging developments in the mining sector.** In October 2020, the government and Barrick agreed in principle to reopen the Porgera gold mine, ending a period of uncertainty. And, in November 2020, parliament passed six pieces of legislation that will pave the way for the Papua LNG project. The project, led by Total in partnership with Exxon and Oil Search, has received the green light from the government. The Wafi-Golpu Joint Venture is also set to receive an environmental permit that will allow the government to begin negotiations with the developer. Speedy resolution of these tensions related to mining projects will ensure higher inflows of foreign currency and taxation revenue, supporting a stronger economic recovery.

31. **The Kina continued depreciating against major trading partner currencies.** Currency depreciation partially reflects deteriorating terms of trade and high import demand. However, cross-currency movements have also contributed to a weakening of the domestic currency. Notably, the Australian dollar, backed by strong mineral exports, started appreciating against the U.S. dollar in the second half of 2020. While the Kina remained relatively stable at the beginning of the year, the global economic slowdown amid the pandemic and perceived safe-haven status of the U.S. dollar put downward pressure on the Kina exchange rate starting from March. The average monthly deprecation of the Kina against the U.S. dollar was 0.3 percent, leading to a 2.5 percent depreciation from the start of the year to October 2020. Deprecation against the Australian dollar was much faster (0.7 percent monthly on average since April 2020), resulting in a 6.8 percent depreciation in the same period. These factors' combined effects led to a 4.9 decline in the exchange rate's Trade Weighted Index.

32. **The Kina remains overvalued against fundamentals despite an eighth consecutive annual depreciation in 2020.** The IMF suggests a further 10–11 percent real depreciation is required to eliminate the overvaluation. Allowing for faster exchange rate depreciation could help to boost non-resource exports and address the foreign exchange shortage. However, authorities are concerned about higher imported inflation driven by a cheaper currency. Figure 18 shows the average monthly depreciation of the Kina against the U.S. dollar. The pace of deprecation has been 0.35 percent every month from April to September 2020, pointing at careful management of the exchange rate by the BPNG.

Papua New Guineans are seeking better prospects. Photo: The Road Provides/Shutterstock.com.

2. Outlook and risks

2.1. Global economic outlook and risks

33. **Following the devastating health and economic crisis caused by COVID-19, the global economy appears to be emerging from deep recession and beginning a subdued recovery.** Global economic output is expected to expand by 4 percent in 2021 but remain more than 5 percent below its pre-pandemic trend (World Bank 2021). Growth in the East Asia and Pacific (EAP) region is projected to accelerate to 7.4 percent in 2021, led by a strong rebound in China. This forecast is predicated on the rollout of an effective vaccine beginning in early 2021 in major economies and somewhat later in smaller emerging market and developing economies, including Papua New Guinea. However, despite the subsiding of the pandemic and a recovery of domestic and global demand, regional activity is expected to remain somewhat below its pre-pandemic trend by late 2021, reflecting lasting scars caused by the pandemic. The recovery in the region excluding China is expected to be protracted and expand by 5 percent in 2021–22 on average, with significant cross-country variations (Table 5).

34. **The pandemic is likely to have a lasting impact through multiple channels, including lower investment and innovation, higher debt levels, and a retreat from global trade and supply chains.** Even if the pandemic subsides, the economic damage from 2020's recessions could prove deeper and more durable than expected. Consumer and business confidence may be even slower to recover, resulting in more protracted weakness in domestic demand. The region entered the pandemic with more robust monetary and fiscal policy frameworks than in earlier crises. Nevertheless, most EAP economies, including Papua New Guinea, are expected to face a larger deterioration in fiscal positions and higher debt than in the aftermath of the Asian

Financial Crisis and the global financial crisis. Weak global growth and remaining travel restrictions have worsened the prospects for a trade-led recovery in the region. More contentious relations in international affairs could result in rising costs for businesses, fragmentation in global economic links, and lower productivity.

Table 5. Real GDP Growth, 2017–22
(Percent)

	2017	2018	2019	2020 Est.	2021 as of Jan-20	2021 as of Jan-21	2022 Jan-21	Percentage point differences from pre-pandemic projections: 2021 Δ change	2022 Δ change
World	**3.3**	**3.0**	**2.4**	**-4.3**	**2.6**	**4.0**	**3.8**	**1.4**	**1.1**
East Asia and Pacific region	**5.4**	**6.3**	**5.8**	**0.9**	**5.6**	**7.4**	**5.2**	**1.8**	**-0.4**
Cambodia	7.0	7.5	7.1	-2.0	6.8	4.0	5.2	-2.8	-1.6
China	6.8	6.6	6.1	2.0	5.8	7.9	5.2	2.1	-0.5
Fiji	5.4	3.8	-0.4	-19.0	2.9	2.6	8.2	-0.3	5.2
Indonesia	5.1	5.2	5.0	-2.2	5.2	4.4	4.8	-0.8	-0.4
Lao PDR	6.9	6.3	4.7	-0.6	5.7	4.9	4.8	-0.8	-0.8
Malaysia	5.7	4.7	4.3	-5.8	4.5	6.7	4.8	2.2	0.3
Mongolia	5.3	7.0	5.0	-5.2	5.2	4.3	5.4	-0.9	-0.1
Myanmar	6.2	6.4	6.8	1.7	6.8	2.0	8.0	-4.8	1.2
Papua New Guinea	**3.5**	**-0.3**	**5.9**	**-3.8**	**2.9**	**3.5**	**4.2**	**0.6**	**1.2**
Philippines	6.9	6.3	6.0	-8.1	6.2	5.9	6.0	-0.3	-0.2
Solomon Islands	3.7	3.9	1.2	-4.8	2.8	3.2	3.5	0.4	0.8
Thailand	4.1	4.1	2.4	-6.5	2.8	4.0	4.7	1.2	1.8
Timor-Leste	-3.8	-0.8	3.4	-6.8	2.9	3.1	4.2	0.2	-0.8
Vietnam	6.8	7.1	7.0	2.8	6.5	6.7	6.5	0.2	0.1

Source: World Bank staff estimates and projections.

35. **On the upside, the rapid deployment of highly effective vaccines could trigger a faster- and stronger-than-expected rebound in major economies and global demand.** The early arrival of an effective and widely available vaccine remains a possibility and could potentially trigger a sharp rise in consumer confidence and a wave of pent-up demand. Private spending would strengthen steadily as employment recovers and pandemic induced uncertainties dissipate. The benefits would quickly be felt in the hardest-hit service sectors such as tourism and travel. New business models, including widespread teleworking introduced during the pandemic, may support durable increases in productivity, boost productive investment, and mitigate the pandemic's long-term damage. Nevertheless, teleworking is not possible to a diverse number of workers, who rely on face-to-face interaction. Developing economies, including Papua New Guinea, also suffer from a digital divide, which further complicates teleworking and work-from-home opportunities.

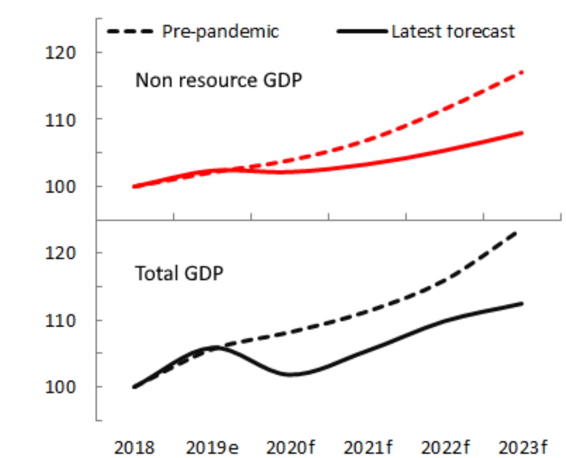
2.2. *Papua New Guinea's economic outlook and risks*

36. **Like in the rest of the world, the pandemic's shock is expected to lead to a long period of below-trend economic growth in Papua New Guinea.** The economy will likely experience steady growth from 2021, but we estimate that the economy will be 9 percent smaller in 2023 compared to our pre-pandemic forecast. This outlook reflects both delays to forthcoming resource projects and some level of "scarring" caused by pandemic-related disruptions, whereby the consequences of higher unemployment, falling incomes, and reduced economic activity impact future consumer spending and business investment. The outlook is expected to follow a shallow "U-shaped" recovery instead of a more rapid "V-shaped" bounce back (Figure 20). These forecasts are subject to a high level of uncertainty. They will depend on the speed of both domestic and international vaccine rollouts,[10] future levels of demand for Papua New Guinea's exports, and government efforts to improve economic and fiscal resilience to external shocks.

[10] A recently adopted PNG's vaccine strategy envisages a rollout of vaccination staring from April 2021. The early phase of the vaccine rollout will target frontline healthcare workers, older people, and people with chronic health conditions.

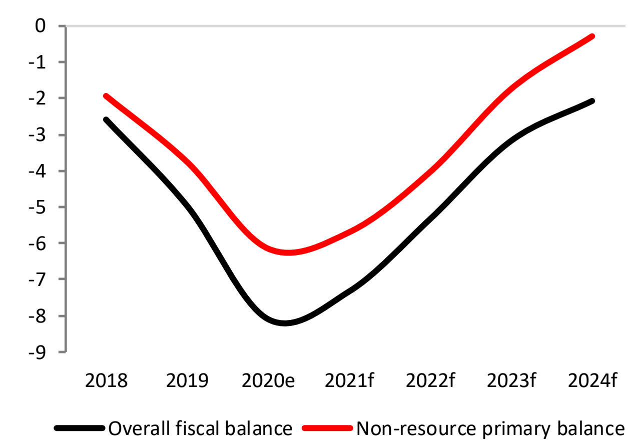
37. **The government is committed to resuming much-needed fiscal consolidation in the post-crisis period, once the COVID-19 crisis eventually subsides.** The COVID-19 crisis has resulted in a record-high fiscal deficit, contributing to a higher debt-to-GDP ratio of 49 percent in 2020. Under our baseline scenario, this ratio will rise further in 2021, to 52 percent. Nevertheless, these levels are considered relatively moderate and stay within the debt limit of 60 percent of GDP set in PNG's recently revised Fiscal Responsibility Act. To contain public debt from rising further, the government has committed to resuming fiscal consolidation efforts in the post-COVID-19 period, by focusing on mobilizing domestic revenue and improving public expenditure efficiency. The 2021 Budget Strategy Paper defines an updated fiscal vision, with the fiscal consolidation agenda to be resumed in 2022 (Figure 21).

Figure 20. Real GDP Levels in 2018–23
(Index, 2018 = 100)



Sources: National Statistics Office; World Bank staff estimates.

Figure 21. The New Fiscal Consolidation Path
(Percent of GDP)



Sources: PNG Treasury; World Bank staff estimates.

38. **Inflation is likely to remain in check, although risks are weighted to the upside.** On the one hand, the BPNG's accommodative monetary policy stance is expected to continue through end-2021, placing upward pressure on prices. Supply chain disruptions resulting from the prolonged pandemic and associated containment measures also carry the risk of a spike in food prices, similar to the first pandemic wave. Increased government spending to provide much-needed stimulus to the economy will add to upside risks. On the other hand, subdued domestic and global economic conditions are likely to contain inflation via depressed domestic demand and lower imported inflation.

39. **Developments in the external sector will be dictated by the health and economic implications of the COVID-19 pandemic.** Export receipts from commodities will determine the external financing requirement, level of international reserves, and exchange rate developments. Sluggish global economic conditions owing to the second wave of the pandemic and associated lockdown measures are likely to keep commodity prices down, leading to large losses of export earnings for Papua New Guinea. On a positive note, commodity prices for Papua New Guinea's exports recovered in the third quarter of 2020 in response to an acceleration of industrial activity globally, particularly in China. However, energy prices were one-third lower in 2020 than in 2019. Metal prices fell slightly overall, although gold prices rose by a record 27 percent year on year. Agricultural prices also recorded a modest decline.

40. **Despite falling commodity prices and an exceptionally uncertain global economic outlook, the current account balance is estimated to have recorded a surplus in 2020.** However, the size of the surplus will be significantly smaller than in 2019. As in previous years, the current account surplus will be offset by a large deficit on the capital and financial account. In a pessimistic scenario, the second wave of the pandemic may lead to a more prolonged global recession with implications for Papua New Guinea's export revenue. In

addition, failure to resolve tensions surrounding mining projects may further depress export revenue and shake investor confidence in Papua New Guinea. These factors may lead to a balance of payments deficit, creating a requirement for additional external financing or a drawdown of reserves. Although currently above the level recommended by the IMF, foreign exchange reserves are under pressure. Against this backdrop, the Kina is expected to continue its depreciating trend. However, noting authorities' careful management of the exchange rate, the deprecation is likely to be modest.

41. **PNG's medium-term macroeconomic outcomes remain subject to high downside risks.** Although domestic GDP growth will resume in 2021, the growth rate may be volatile owing to external and domestic factors. Externally, suppose economic growth in Australia, China, and Japan—PNG's main trading partners—is below expectations. In that case, demand for Papua New Guinea's key commodity exports may be affected, placing downward pressure on the local currency and eroding external buffers. Commodity-price and natural-disaster shocks may continue to impact extractive sector performance, with negative implications for the rest of the economy. These developments would negatively impact resource revenue flows to Papua New Guinea's external and fiscal accounts. Domestically, this volatility is subject to an uncertain performance by the country's major (existing and new) resource projects. Potential delays in the implementation of new resource projects may also impact macroeconomic outcomes, affecting the underlying assumptions of the baseline scenario.

42. **The low-case scenario for 2021–24 suggests a slower-than-anticipated recovery in 2021; fiscal and debt targets may also be missed** (Table 6). The extractive sector could take the greatest hit if external demand softens and commodity prices decline further, except for gold prices (which may offset the impact). A reintroduction of movement restrictions and limited access to face-to-face services may affect the non-resource economy, leading to a relatively sluggish recovery. Fiscal and debt sustainability may be undermined by weaker revenue performance and slow progress on wage bill reform, leading to higher fiscal deficits and rising public debt than envisaged in the baseline scenario. In the case of weaker revenue performance and poor results from wage bill reform, the overall fiscal deficit may remain above 5 percent of GDP in the medium term, contributing to a further escalation of the debt-to-GDP ratio. In these circumstances, the stock of public and publicly guaranteed debt may quickly approach the recently increased debt-to-GDP threshold of 60 percent of GDP.

Table 6. Real GDP Growth: Baseline and Low-Case Scenarios in 2021–24
(In percent, unless otherwise indicated)

	2020 Est.	2021	2022	2023	2024
		Projections			
Baseline scenario					
Real GDP growth	-3.8	3.5	4.2	2.4	2.6
Resource sector	-5.8	4.3	5.6	1.4	1.8
Non-resource economy	-0.2	1.1	2.0	2.5	2.6
Overall fiscal deficit (percent of GDP)	-8.1	-7.3	-5.3	-3.2	-2.1
Public and publicly guaranteed debt (percent of GDP)	49.0	52.2	53.3	54.3	54.0
Low-case scenario					
Real GDP growth	-3.8	1.1	3.5	2.5	2.7
Resource sector	-5.8	-0.1	4.4	1.2	1.6
Non-resource economy	-0.2	0.7	1.8	2.7	2.9
Overall fiscal deficit (percent of GDP)	-8.1	-7.4	-5.5	-5.4	-5.5
Public and publicly guaranteed debt (percent of GDP)	49.0	53.0	54.4	56.6	59.0

Source: World Bank staff estimates and projections.

43. **Political risks to the outlook are high, exacerbated by recent political turmoil.** Successful motions of no-confidence are relatively frequent, and governing coalitions do not tend to be based on clear programmatic policy platforms, so the policy environment can be quite unpredictable. Although the most recent motion of no-confidence against the current government failed to succeed, the political situation remains

fluid. The current Prime Minister has managed to secure a majority in parliament at the end of 2020, following a series of negotiations with several members in the opposition camp. This helped to pass the 2021 National Budget in time. Another attempt of initiating a vote-of-no-confidence is likely when parliament resumes its business in April 2021. This political uncertainty will remain until next elections to be held in June 2022, with certain risks to the negotiation process with current and potential investors and the overall business sentiment in the country. Despite political agendas of different parties in the coalition, the government should pursue structural reforms of the economy and continue strengthening institutions in the country, especially the ones that are providing basic public services to the population. The latter is covered in a special focus section of this report (Part B).

Part B

Special focus

Institutional Capital for Public Service Delivery

What underpins the capabilities of the key institutions for basic service delivery in PNG, and how can these be strengthened?

Village courts play an important role in supporting social order and justice at the local level. Photo: David Craig.

1. What is institutional capital and why does it matter in Papua New Guinea?

1.1. Institutions and everyday life in Papua New Guinea

44. **The delivery of basic services in PNG is extraordinarily challenging.** The population is highly dispersed and fragmented, as a result of the mountainous and archipelagic geography, low urbanization rate (13 percent), high ethnolinguistic diversity (840 distinct language groups), and social identities that are primarily small-scale. PNG shares the political economy characteristics of resource-rich states.[11] These combine with PNG's political structures and its small-scale social identities to yield political economy dynamics that support patron-client relationships to dominate the political system and state. In this context, it is very challenging for the state to be able to provide its population with basic services such as order and justice, education, health and roads. To understand how it does so, and why it is more successful in some areas than in others, requires an understanding of the capabilities of the institutions involved.

45. **Many different institutions matter for the delivery of the basic services that affect Papua New Guineans' daily lives.** These include state and non-state institutions (for example, institutions of kinship, land and resource ownership, customary authority and religious authority). They include institutions at multiple levels of scale (local, district, province, national and international—for example, donor institutions). They include institutions in different sectors, both on the spending side of the state and on the revenue side. They include political institutions and administrative institutions, including oversight and accountability institutions. Whether or not these institutions work well is critical to the well-being and livelihoods of people throughout PNG. The crucial nature of these institutional capabilities is clear in ordinary times, and starkly apparent during times of crisis. For example, the current COVID-19 emergency is testing the capabilities of health institutions; the current economic contraction is testing the capabilities of institutions that support agricultural livelihoods.

[11] These characteristics are described in Barma and others (2012).

It is essential to understand which institutions work well, why they work, and how institutional capabilities can be built on and strengthened.

46. This special focus section uses an *institutional capital* framework to understand the capabilities of the institutions that provide basic services in PNG. It examines why some institutions can do this with some degree of regularity and reliability—though not always equitably—and why others cannot. This approach focuses on the ways institutions in PNG actually work and their existing capabilities, rather than starting with a good practice model and identifying PNG's deficits against that. The approach recognizes that the capabilities that institutions have are a product not only of factors internal to institutions, but also of external factors in the broader social, economic, geographic, and political context. Its approach to recommendations, therefore, is to ensure that they are informed by the wider contextual reality within which they must be able to work. This approach can be valuable to policy makers by identifying how existing capabilities can be built on and supported to become more reliable and more equitable. It can also be valuable in recognizing how to avoid undermining existing capabilities.

1.2. Understanding institutions: rules, roles, and resources

47. To introduce this institutional capital framework, we first need to understand what institutions are. Institutions are constituted by regular patterns or bundles of *rules, roles,* and *resources* (March and Olsen 2008, 3). These combine to yield specific capabilities in particular contexts—for instance, the capability to deliver health services or maintain social order in a particular area of the country. An institution may be manifest in a series of individual organizations (for instance, a particular village court is a manifestation of the wider institution of village courts). This report focuses not on a specific organization (it does not ask, for example, how a specific school performs) but on the wider institutions. By definition, institutions are reasonably durable—otherwise, they would not be regular patterns that influence people's actions and expectations in fairly predictable ways over time. Part of that durability comes from the effects they have on their surrounding contexts and how these effects feed back to the institutions in ways that sustain them. Institutions do, of course, change in response to changes in factors both internal and external to them. Sometimes they change through slow evolution; other times they change very rapidly (in the face of a crisis, for instance).

48. What are *rules*, *roles,* and *resources*? Institutional *rules* are the way things are done (North 1991). They can be written or unwritten, but either way, they influence what is and what is not done in a particular context (the procedures for operating a health clinic or the ways people pass on land to the next generation, for example). Institutional *roles* are the parts that people perform in a particular context (the part played by a teacher in a school or the part played by a magistrate in a village court hearing). Institutional *resources* are the funds with which the institution operates in a particular context (these resources may be in the form of staff, equipment, and so on). An institution's rules, roles, and resources affect and are affected by its surrounding context. In particular, an institution's fit within and implications for the distribution of power and resources in its surrounding context is critical to the institution's resilience and vulnerability.

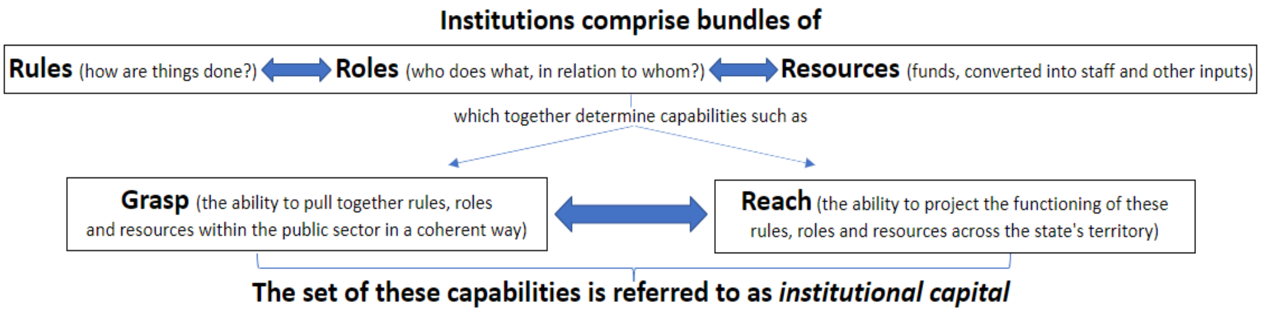
49. The ways institutions combine their rules, roles, and resources yield their capabilities—things the institution can do on a fairly reliable basis in a particular context. The set of those capabilities is what we refer to as institutional capital (Sen 1985; Nussbaum 2011). PNG possesses institutional capital in customary and imported institutions, and typically in combinations of the two. But which aspects of institutional capital matter most for institutions to work in particular contexts in PNG? In what sectors is PNG's institutional capital strong? How and in what contexts could it be strengthened? This special focus section examines these questions. Institutional capital is not limited to a particular sphere (public, private or civil society) or scale (international, national, provincial, district or local). However, given the section's focus on public service delivery, it is worth enriching this framework with a specific focus on *public* institutional capital.

1.3. Understanding public institutional capital: grasp and reach

50. **The approach we take to public institutional capital focuses on two crucial and closely-related capabilities: *grasp* and *reach*.**[12] The first core capability of a state is the ability to pull or *grasp* together the rules, roles, and resources needed to organize and regulate people and other resources in the public sector, in a coherent way. Grasping is about getting political and administrative officeholders in the state to play specific roles, according to particular rules, with resources organized to support this. Grasp is a capability required by state institutions at all levels, from national to local institutions. Enabling this kind of capability for collective action can be extremely challenging where rules, roles, and resources are fragmented across institutions. For example, Provincial Health Authorities (PHAs) in PNG pull or grasp together—under a single Board—legislated powers and established procedures (rules), an array of management roles in planning, budgeting, and monitoring and evaluation, and fiscal resources that are clear and reasonably reliable. However, their grasp is limited when it comes to the fiscal resources for health infrastructure that Members of Parliament (MPs) have—PHAs do not yet have the capability to plan, budget, or monitor these resources. Where rules, roles, and resources are fragmented across levels of government, grasp capability at one level will be interdependent with capabilities at other levels.

51. **The second core capability of a state—*reach*—is closely related to the first, like the two sides of a coin.** With *grasp* established in state institutions, those institutions need to be able to project their capabilities across the territory of their jurisdiction. The state needs to be able to *reach* down to local communities to provide public goods and services—security and social order, health and education, goods and services that enable people's livelihoods, and so on—whether directly or through the reach of lower levels of government. Essentially, *reach* is about the effective projection of the state's authority and capability with respect to the people and resources within its territory. Grasp and reach capabilities interact not only within levels of government but between them. For example, central government reach to reliably distribute vaccines to health clinics is critical to the grasp capabilities of clinics at local level. Figure 22 illustrates this understanding of institutional capital.

Figure 22. Institutions and Institutional Capital



1.4. Focus of this study and a look ahead at its findings

52. **To explore institutional capital in PNG, this study focuses on sectors that are important to the daily lives of most Papua New Guineans.** The overwhelming majority of the population lives in rural settings, and a significant share of urban dwellers live in informal settlements. The study focuses on the institutions that deliver basic services including order and justice (particularly village courts), education, health, and roads. It also focuses on the institutions through which public revenues are collected to fund these basic

[12] This approach draws on global and PNG literature on state-building, political order, and state-society relations. See Fukuyama (2008); Fukuyama (2014); Mann (1984); Khan (2010); Laws (2012).

services. The next section provides a stocktaking of institutional capital in these sectors. It analyzes key resilience factors and opportunities. It also analyzes key vulnerabilities and constraints, including those arising from the fiscal volatility associated with PNG's resource-dependent economy—as examined in Part A. In a report of this length, the coverage of institutional capital in the selected sectors is necessarily very brief, rather than being comprehensive. The focus in each sector is to illuminate important aspects of its institutional capital in order to identify where it may be feasible to protect and strengthen that institutional capital. The final section sets out the key findings and policy recommendations identified through the sectoral analysis.

53. To foreshadow these key findings, the study shows that the capability to deliver basic services in PNG depends on how effectively different state and non-state institutions come together to jointly provide the services. No single scale or type of institution—state or non-state—has the requisite grasp and reach capabilities alone. Instead, both grasp and reach capabilities depend on the ability to mobilize contributions to rules, roles and resources from the multiple scales and types of institutions that hold them. Only through such joint efforts can the rules, roles, and resources required for service delivery in PNG's extraordinarily challenging context be mobilized. Service delivery tends to occur reliably when there are sustained partnerships between institutions which allow the rules, roles, and resources of each to be drawn on to enable greater capabilities—in effect, to jointly provide the service.

54. The study finds that institutional capital is weakest where these partnerships are weak or absent. In such circumstances, the requisite rules, roles, or resources cannot be mobilized and coordinated to a shared purpose. This tends to be more the case, the more the following considerations are at play:

- The service requires significant amounts of capital spending, or significant amounts of non-salary recurrent spending controlled centrally by a single institution. These types of spending tend to be both volatile and vulnerable to patronage.
- The political value of the service can be gained even if the service is provided only narrowly (by social group or geographic area), it does not depend on equitable provision.
- The service is complex, requiring coordination and stable commitments of rules, roles, and resource contributions across a large number of institutions to enable collective action.
- Patron-client relationships at higher tiers of government penetrate those at the local level, undermining local contributions of rules, roles, or resources to the service.
- There is a large divergence between the rules coming from the different institutions that are needed to jointly provide the service.

55. Based on these findings, the recommendations focus on ways to build on and strengthen institutional arrangements that enable the joint provision of services. In weaker areas, the recommendations offer suggestions of ways to contest or help to shift political incentives that currently undermine the development of institutional capital. The recommendations are framed in a medium-term time horizon. The current crises PNG is experiencing – examined in Part A – make clear some of the key resilience factors and vulnerabilities of its institutional capital, the recommendations in Part B look beyond the immediate crises to medium-term prospects for strengthening institutional capital.

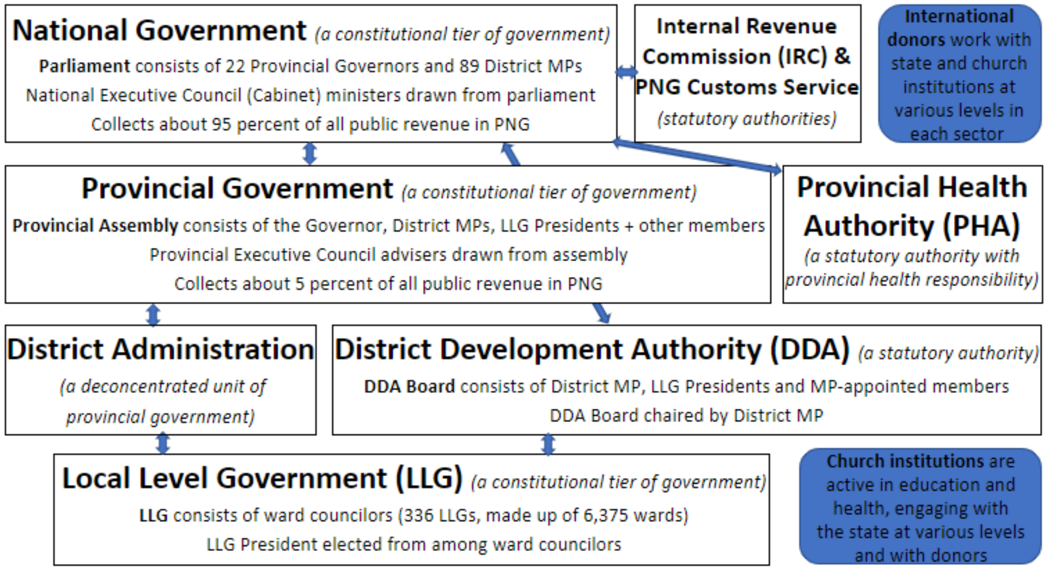
Schools are widely recognized as a key signal of the state's presence in remote areas. Photo: David Craig.

2. Institutional capital: stocktaking, constraints, and opportunities

56. **This study focuses on institutional capabilities in five key sectors: order and justice, education, health, roads, and revenue.** Since the broader structure of the state is common across these sectors, it is outlined before the analysis turns to the specific sectors. Global indicators of the overall quality of state institutions are also examined at the start of this section.

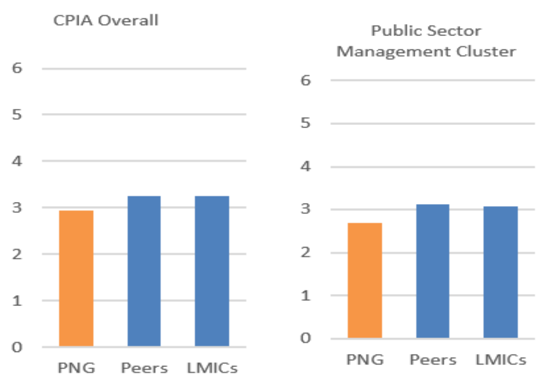
57. **PNG's constitution provides for three tiers of government, but the reality is more complex.** The three tiers under the constitution are at national, provincial and local level. Another tier of government has effectively grown up at district level—in between provincial and local levels—around MPs elected from district constituencies. There are 89 districts, and their elected members are the majority of representatives in the national parliament. Provincial governors—elected from PNG's 22 province-level electorates—lead the executive at provincial level and constitute the remainder of representatives in the national parliament. The emergence of the additional tier at district level is a consequence of the power that district MPs exercise over government formation at the national level. These District Development Authorities (DDAs) are established by legislation as statutory authorities with wide mandates led by district MPs. Considerable resources are channeled from national government to DDAs. DDAs have been overlaid on an existing network of district administrations, which are deconcentrated units of provincial administrations, led by a district administrator who reports to the provincial administrator, who is accountable to the provincial governor. With the establishment of DDAs, district administrators also became DDA chief executive officers (CEOs), accountable to the district MP. Thus, they have two bosses and the increasing resources of DDAs are tending to make district MPs the more powerful of the two. Figure 23 illustrates this broad structure of the state, with additional notes on other key institutions relevant to specific sectors examined in this study.

Figure 23. Tiers of Government in PNG



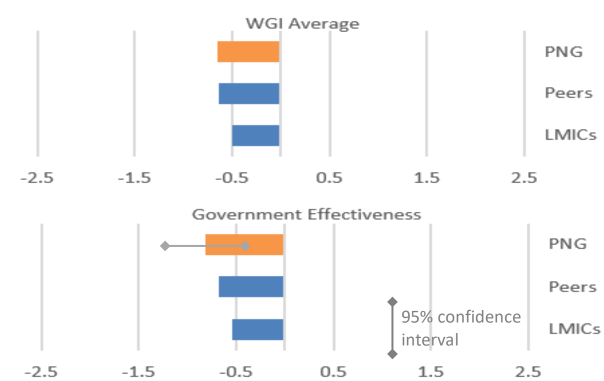
58. Global indicators suggest that the overall quality of state institutions in PNG is similar to, but slightly below, its peers. As measured by the World Bank's Country Policy and Institutional Assessment (CPIA), PNG's country policy and institutional quality is slightly below that of lower-middle-income countries (LMICs) and a subset of resource-rich peers,[13] both overall and for the public sector management and institutions cluster of indicators (Figure 24). The comparisons are similar for Worldwide Governance Indicators (WGI) overall (Figure 25). For the WGI government effectiveness and control of corruption indicators, there are larger gaps between PNG, its peers, and LMICs—but the wide margin of error means the differences with peers are not statistically significant (Figure 25 and 26). For the WGI voice and accountability indicator, PNG scores better than its peers and LMICs, and the differences are significant. These metrics give an overall indication of public institutional capability in PNG in the global context and suggest the general level of capability that could be expected of PNG's public institutions across the board. The capabilities approach to institutional capital taken in this study complements this, by examining specific institutions in particular sectors, to understand the varied extent of their actual capabilities and explain the sources of these variations.

Figure 24. CPIA and Public Sector Management Cluster
(Scale 0 to 6)



Source: World Bank CPIA dataset (https://datacatalog.worldbank.org/dataset/country-policy-and-institutional-assessment).

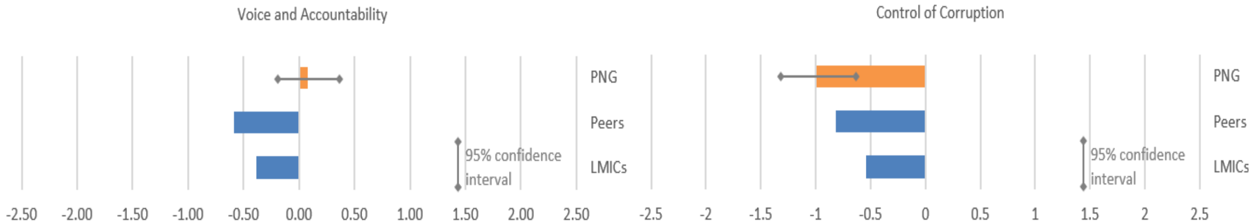
Figure 25. WGI and Government Effectiveness Indicator
(Scale -2.5 to 2.5)



Source: World Bank WGI dataset (http://info.worldbank.org/governance/WGI).

[13] Following World Bank (2018b, 5), these peer countries—with a similar income level and resource dependence—are Bolivia, Republic of Congo, Ghana, Lao People's Democratic Republic, Mauritania, Mongolia, Nigeria, Uzbekistan, and Zambia.

Figure 26. WGI Voice and Accountability, and Control of Corruption Indicators
(Scale -2.5 to 2.5)



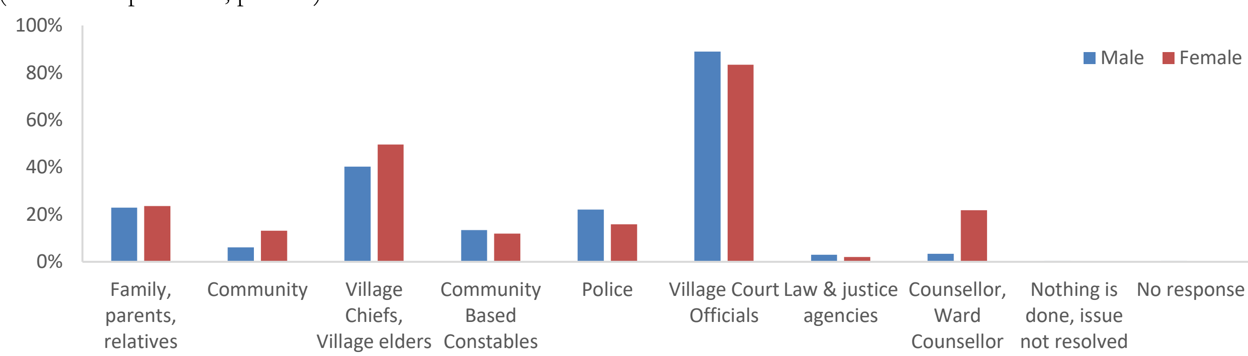
Source: World Bank WGI dataset (http://info.worldbank.org/governance/WGI).

2.1. Institutional capital for basic order and justice

a. Basic order and justice institutions and everyday life in PNG

59. **The village court system's role in supporting basic order and justice at the local level is remarkable, particularly given its low fiscal cost.** While village courts work better for some things and some people than for others, they are what most people turn to, to resolve everyday grievances and disputes (see Figure 27, for Gulf Province).[14] Village courts—and associated local land and other mediation processes, including tribal and inter-tribal dispute settlement systems—are only one institution in the broader social order and justice sector. It also includes a national police force, prison system, formal court system, constitutional law review commission, and private security industry. Village courts interact in important ways with other institutions in the sector, particularly the police and higher courts. But for most Papua New Guineans living in rural areas and informal urban settlements, the security and regulation of everyday life depend primarily on village courts and associated mediation processes, so this study focuses on them (Box 4). People resort less to the police and the formal court system. The flourishing private security industry reflects weaknesses in the reach and effectiveness of the police force.[15] The extent to which private security offsets these weaknesses depends largely on the socioeconomic status of beneficiaries: private security typically protects public sector agencies, formal private sector entities, and high-income households in urban areas and resource extraction enclaves.

Figure 27. Who are those involved in solving problems or community issues? (Gulf Province)
(Share of respondents, percent)



Source: Australia, DFAT (2016).

[14] Nationally representative data on this question are unavailable.
[15] Some 30,000 security guards work for registered security companies (and likely more with unregistered operations), compared to police numbers of no more than one-third of that amount (Walton and Dinnen 2020).

b. The institutional capital of the village court system

60. **To understand the institutional capital of the village court system, we first have to understand how village courts work.** Village court hearings typically involve not only individual disputants but also family and clan representatives from all sides. Settlements or compensation are agreed upon through a mix of arbitration and mediation involving the wider groups, emphasizing win-win outcomes and restorative justice. Cases are typically heard quickly, locally, and in 'tokples' (the local language). Village courts meet regularly, but their magistrates can and do convene immediately at almost any time to prevent escalation of conflict and take initial 'belkol' (cooling the belly—temperament or situation) steps so grievances are heard and justice processes are underway. Of course, village courts are not successful in resolving every matter brought to them and facilitating agreement on outcomes. Survey data from two areas of PNG suggest that people are less likely to be satisfied with village courts where cases were not resolved or the compensation the village court decided on was not paid (Australia, DFAT 2016).

Box 4. What are village courts?
The village court system supports basic order and justice at the local level throughout PNG

As summarized by Goddard (2009, 2), "the fundamental work of the village courts is to deal with disputes." These disputes commonly involve land and agriculture, family and marital relationships, lending, and fights between clan members. Sometimes they involve matters including sorcery, sexual and family violence, serious assaults, interclan fighting, and murder. The latter types of matters are, in fact, beyond the legal scope of village courts and should involve police and be referred to district courts. The hearing of some of these types of cases in village courts is a vulnerability that we return to below. Alongside village courts, there are systems of land mediation operated by publicly-appointed local land mediators. In those informal urban settlements where village courts have not yet been established, mediation systems akin to village court processes often operate at the local level without any public funding.

Village courts operate at the intersection of the formal state and local, non-state forms of public authority. They are sanctioned by the state but staffed locally. PNG now has roughly 1,680 village courts, made up of 18,480 officials, of whom perhaps 6 percent are women.[a] Each village court is staffed by five to seven magistrates, a court clerk, and one to two peace officers (or bailiffs). These officials are formally gazetted and paid a monthly stipend by the national government—or at least they are meant to be. Budget documents suggest that 44 percent of appointed officials are not currently gazetted or paid. Officials are recruited via local processes under the supervision of the national government's Village Courts and Land Mediation Secretariat. These processes vary from place to place: in some areas, magistrates are elected; in others, magistrates are nominated based on consultations between provincial village court officers, sitting magistrates and local community members. These processes tend to be taken seriously, and usually—but not always —see the appointment of well-respected and competent officials. People's recognition of the importance of village courts for security and justice in their daily lives means they generally attempt to choose well-respected and competent people for the roles. This supports village court authority and effectiveness, creating a virtuous circle.

Village court magistrates must *not* have formal legal training. Rather, they "employ customary methods of mediation and conflict resolution which are basic concepts of restorative justice."[b] The Village Courts and Land Mediation Secretariat is responsible for training materials and training. In practice, training is largely delegated to provincial governments and varies with their capability and commitment. In some cases, it covers the *Village Courts Act*, village court processes, village court officials' roles, communication and mediation, and ethics, corruption, gender and sexual violence. The Village Courts and Land Mediation Secretariat is also responsible for monitoring the effectiveness of village courts, but in practice this oversight function is delegated to provincial governments and its performance varies by province. Provincial governments receive function grants for the support functions they provide for the village court system. Village courts require no special buildings or paraphernalia (other than the village court record book).

a. The estimate for the number of women is based on 2015 data (around 900 women of 15,000 officials). For more information, see http://www.justice.gov.pg/index.php/2015-04-26-07-32-15/village-courts-and-land-mediation-secretariat.
b. See http://www.justice.gov.pg/index.php/2015-04-26-07-32-15/village-courts-and-land-mediation-secretariat.

61. **A key part of the institutional capital of village courts is their capability to *grasp* together different forms and sources of authority.** Part of the authority of village court officials comes from their ability to speak, elicit others to speak, maintain trust, and deliver respected outcomes in often intensely disputed situations. Another part of their authority typically comes from their standing in church, previous public service roles, or other domains. That is, it is gathered (horizontally) from other local settings or forms of authority. Village court officials also gather authority (vertically) from the state, which delegates judicial authority to them. Their appointment process and formal gazetting is important in this regard. Village courts tend to gain credibility from their ability to include different parties and perspectives. This has been critical to the institution's ability to translate from rural village to urban settlement contexts. In urban settlements, village courts have proven able to draw authority from the different 'kastom' (underlying culture) of different regions of PNG, and from their ability to bring these together.

62. **Another key part of the institutional capital of village courts is their capability to extend the *reach* of basic order and justice out to the very edges of the state, into local society and its authority structures.** Through village courts, the state works in partnership with local, non-state forms of public authority to jointly provide basic order and justice. Their reach is due not only to the rules, roles, and resources they have from the state, but also those they gain from communities and their authority structures. This includes the social order, conflict resolution, and justice capabilities of different social groupings in PNG established historically—capabilities that did not depend on the reach of a central state in precolonial years. Part of the reach capability of village courts is this adaptability to the norms and authority structures of local populations. As Goddard (2009, 3) observes:

> "Each of the…village courts reflects, in its workings and decisions, the sociality of the particular community it serves… Village courts, staffed by local community members and knowledgeable of local issues and the social context of minor disputes, yet representing the country's 'law' in a manner that is relatively easy for villagers to comprehend, have become enormously popular. Their accountability on the one hand to Western legal principles…(the Village Courts Act), and on the other to local notions of just outcomes, has resulted in an enormous variety of 'styles' of practice among them."

In some rural contexts, it is evident that the adaptability of the village court system includes the ability to be scaled-up. For example, in Enga, Operation 'Mekim Savi' ('Make Them Understand') has been initiated by the provincial government. Under it, a higher tier of courts has been established for inter-tribal conflict resolution, combining leading magistrates from ordinary village courts that have demonstrated their intra-tribal authority (Pupu and Wiessner 2018).

63. **The adaptability of the village court system is also evident in mediation processes.** In urban contexts, informal settlement development has often outpaced the establishment of village courts. In Lae, for example, local leaders have appropriated village court norms and procedures in the practice of peace and good order 'komitis' (committees), which depend on local human, social and financial capital. They operate informal 'courts' using mediation processes, providing some access to justice in settlements. These 'courts' seek representation from each ethnic group present locally, producing 'village' law and justice structures and leadership that effectively integrate those of the constituent communities. These can underpin authority and trust even in diverse contexts. While in some settlements formally gazetted village court officials work with other recognized local justice leaders, and provide an umbrella of apprenticeship for emerging leaders, in others mediators compete with village court magistrates, with mixed results (Craig, Porter, and Hukula 2016). Village court magistrates can themselves act as mediators—outside village courts—and can establish city or provincewide reputations.[16]

[16] By acting as mediators, outside village courts, they can settle disputes without the restricted compensation limits imposed on village court settlements. Since village court officials are paid a monthly stipend, they are not supposed to charge fees. When they work as

c. Resilience and opportunities of the village court system

64. **The way that basic order and justice is provided jointly by state and non-state actors in village courts is crucial to the resilience of the village court system.** Local communities and their authority structures make substantial contributions to the rules, roles, and resources that village courts need to be effective. These contributions are made because village courts have a strong fit in local contexts and are recognized as very important. They also offer opportunities to emerging leaders to perform well in an arena that really matters locally, facilitating their contributions. These factors contribute to the grasp capabilities of village courts-—pulling rules, roles, and resources together from both state and non-state sources. The extent of local contributions of rules, roles, and resources to village court authority and operations is an important part of why the capabilities of the village court system can be achieved at such a limited fiscal cost.[17]

65. **The resilience of the village court system is also a product of the nature and extent of the contributions it requires from the state.** The rules and roles that the state contributes have been stable over time. In contrast to some of the other institutions examined in this study, the resources have also been fairly stable. The nature and extent of these public resources are crucial. The bulk—over 85 percent—of the fiscal resources required is for village court officials' stipends. The payroll is one of the government's highest expenditure priorities. Although it may at times be delayed amid severe cash flow constraints, it is almost always paid. The dominance of payroll spending in the fiscal resources required by the village court system makes these resources reasonably secure. The non-salary recurrent costs of the village court system are relatively limited. It is also well placed for those, because the funds come through function grants to provinces. These are intergovernmental grants based on needs (accounting for the cost of service provision and the availability of own source revenue). They are constitutionally guaranteed—while often paid late, they are always paid. They are also relatively hard to divert to other purposes, due to the specific financial controls that apply to them. The village court system requires minimal capital funds.[18] Thus, even in the midst of the fiscal constraints triggered by the COVID-19-crisis, the regular flows of fiscal resources for village courts have continued.

66. **PNG has the opportunity to build on the existing capabilities of the village court system, through modest additional funding.** Many appointed village court officials are currently not gazetted or being paid (see Box 4).[19] This reflects a lengthy interruption to an expansion of the village court system begun in the mid-2010s. Under it, new village courts were created—particularly in urban settlements—to catch up with changes in where people live. Additional officials were also appointed, significantly increasing the number of women magistrates. While payroll is relatively secure in the face of fiscal constraints, this expansion was vulnerable because the fiscal situation tightened when it was incomplete and most new appointees had not yet been added to the payroll. Completing this expansion would still leave village court expenditure below 1 percent of total public spending. To complement this, PNG could also utilize the skills and expertise of its most experienced urban and rural mediators, to train and build the capacity of new village court magistrates. This would be particularly important for women magistrates, who have typically had fewer opportunities for apprenticeship under serving village court magistrates.[20]

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mediators, however (where compensation levels are higher and a great deal of engagement may be required to ensure agreements are reached and accepted), fees may be collected as a share of the compensation. Fees are often, but certainly not always, token.

[17] According to PNG Treasury data, this cost is 4.7 percent of law and order sector expenditure and 0.4 percent of total public spending.

[18] Capital funding for village courts is not delineated separately in the budget, but capital spending for village, district, national, and supreme courts *combined* is equivalent to about 0.4 percent of total law and order sector spending, according to PNG Treasury data.

[19] In some cases where stipends are delayed (or, for more recently-appointed officials who are not gazetted and paid, but who are working anyway, not paid at all), village courts can continue to operate, with officials either withholding the fines levied instead of remitting them to provincial governments or charging fees.

[20] Magistrates can be observed to recruit what are called 'little boys' (often men in their forties, but with little experience), to serve and learn from them via informal processes of patronage and apprenticeship. Woman magistrates play the same role for younger women, but the few women magistrates mean fewer such apprenticeship opportunities for emerging women leaders.

d. Vulnerabilities and constraints of the village court system

67. **The strong fit of village courts in local contexts is not only a source of resilience, it also imposes constraints on them.** The local forms of authority that the state joins with to provide order and justice also constrain the operations and outcomes of village courts. In particular, gender inequities in communities and their authority structures are reflected in village courts. The extent to which village courts protect the interests of women equitably with men is a major vulnerability. Survey evidence from two areas of PNG suggests that women are somewhat less likely to say that village courts are doing a good job than men (Australia, DFAT 2016). There is a particularly significant problem with cases of family violence, where it is common for village courts to return victims to contexts dominated by the perpetrator and their family. Women experiencing family violence or facing sorcery accusations—with access only to village court justice—can be extremely vulnerable. The survey indicates people are more likely to be dissatisfied with village courts where cases involve rape or sexual assault, or sorcery-related issues (as opposed to cases involving swearing, stealing, land disputes, and unwanted pregnancies) (Australia, DFAT 2016).

68. **It is critical that these gender inequities be tackled.** The government's failure to complete the earlier increase in village court officials—where the number of women magistrates increased significantly—is a missed opportunity. It could still be taken up, however. Increased representation of women on village courts could augment their ability to address gender inequities in village court operations and outcomes. It would also be useful to monitor and gather evidence on the way village courts are handling family and sexual violence and sorcery cases, to gather evidence and directions for reform. The weaknesses of other institutions in the wider law and justice sector—particularly police and higher courts—are a key vulnerability for village courts in this respect. This is because the worse the alternative institutions (where family and sexual violence and sorcery cases should be referred), the more likely village courts are to hear these cases. Despite being beyond their legal scope, village courts may handle some types of serious offences to the satisfaction of the parties involved. But where there are profound differences between state rules and non-state authority norms, such as in cases of rape or sexual assault or sorcery, village courts have weak capabilities. In such cases, village courts' embeddedness in local contexts becomes a weakness, because the underlying patriarchy they reflect reducing the possibility that women will be treated equitably, even if state rules provide for that.

69. **Gender inequities are of course not the only aspects of local power relations that pose vulnerabilities for village courts.** Village courts are vulnerable to interference from the police. Where a party to a dispute enlists the partisan support of a local police officer, police arrests or harassment of the other parties, or attempts to influence village court officials, can shape the outcomes and undermine the institution (Craig, Porter, and Hukula 2016).Village courts are also vulnerable to the effects of the growing dominance of competitive patron-client relationships in the political system (World Bank 2018; World Bank forthcoming, a). As patronage relationships increasingly stretch right down from provincial governors and district MPs to the ward level, village courts are at risk of becoming subject to these power dynamics. Like any sphere of authority, they are subject to pressures for politically-allied individuals to secure positions of authority.

2.2. Institutional capital for basic education

a. Basic education institutions and everyday life in PNG

70. **PNG's institutional capital for basic education has some key similarities with that for village courts.** The focus here is on basic education—elementary, primary, and secondary schools[21]—because it is

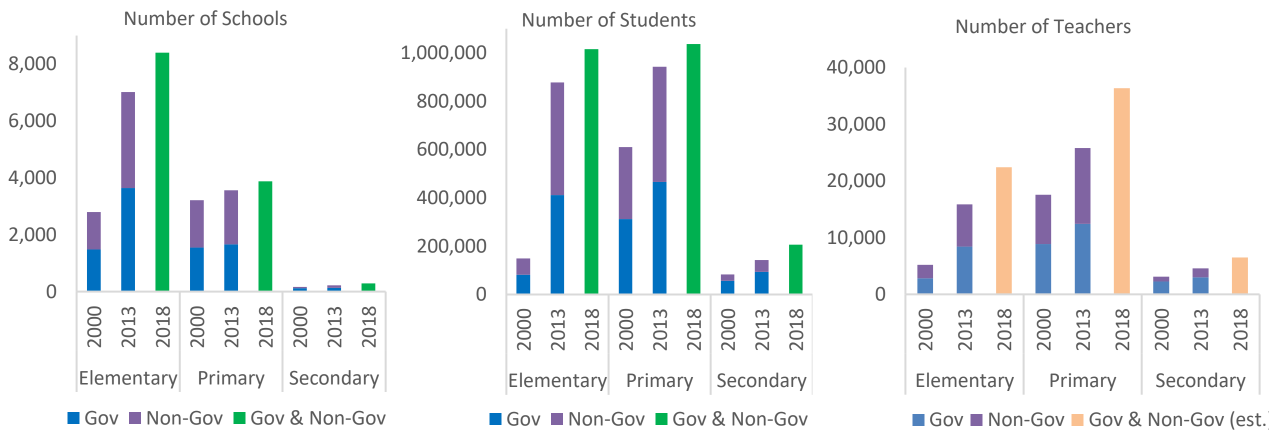
[21] PNG's education system is currently changing from a structure of elementary schools (prep to year 2), primary schools (years 3 to 8), and secondary schools (years 9 to 12), to elementary schools (prep), primary schools (1 to 6) and secondary schools (7 to 12).

what directly affects the majority of the population. This is not intended to suggest that preschool is unimportant, but as yet it has limited presence in PNG.[22] It is also not intended to suggest that tertiary and technical/vocational education is unimportant, but only a small share of the population have any experience of it. The focus, then, is on the institutions that provide basic education to most children in towns and villages across PNG, affecting their future livelihoods and well-being. Like village courts, the key factors underpinning the reach and resilience of basic education institutions are partnerships between state and non-state institutions, and the nature of public funding flows.

71. **Basic education attracts significant popular support and resources in PNG and is widely recognized as a key signal of the state's presence in remote areas.** Support and resources come from multiple levels, from the local to the international (given donor involvement). Signaling the priority PNG places on education, public education spending is about 17 percent of total expenditure, on par with LMICs. Since PNG's total public spending as a share of GDP is below average for LMICs, however, PNG's public spending on education as a share of GDP is also below average for LMICs.

72. **PNG has managed to cater for a large increase in student numbers over recent decades (Figure 28).**This increase has arisen from rapid population growth and increased enrollment rates. Gross enrollment rates indicate substantial increases in students being accommodated, particularly in lower grades (from 112 to 145 percent in elementary schools, 2009 to 2016; from 55 to 88 percent in primary schools, 2000 to 2016; from 19 to 23 percent in secondary schools, 2010 to 2016).[23] Net enrollment rates have also increased significantly over time in elementary and primary schools, but are considerably lower than gross enrollment rates.[24] This indicates significant over-age initial enrollment or grade repetition. PNG's net enrollment rates are below average for LMICs, particularly at secondary level. Girls' enrollment lags that of boys, with the gap increasing from elementary to primary, and from primary to secondary levels.[25] Security risks of boarding—which many secondary students must do given PNG's extreme population dispersion—likely add to wider biases privileging boys' education. Those girls who are enrolled, however, do as well as boys (World Bank 2020e, 39).

Figure 28. Expansion in Schools, Students, and Teachers, 2000–18



Source: Basic education data sheet.

73. **Improving the quality of basic education remains a significant challenge.** PNG has managed to increase the number of primary school teachers to keep student-teacher ratios roughly constant between 2000

[22] While this is changing, early childhood education is still predominantly an urban, private sector activity. In 2018, there were 1,128 early childhood education facilities in PNG (small compared to the 8,404 elementary schools) (NDoE 2020).
[23] NDoE (2009); NDoE (2019).
[24] Between 2010 and 2016, net enrollment rates rose from 49 to 81 percent for elementary school, from 44 to 58 percent for primary school, and from 12 to 13 percent for secondary school (NDoE 2019).
[25] NDoE (2009) and NDoE (2019).

and 2016, but the same has not been true at elementary or secondary level, where student-teacher ratios have increased considerably.[26] Overall, the number of teachers graduating each year is insufficient to offset attrition and increase the teaching workforce to match growth in student numbers. Insofar as the quality of education outcomes is indicated by standardized test scores, there have been both positive and negative trends in recent years. The proportion of students achieving minimum proficiency levels in literacy and numeracy appears to have increased between 2015 and 2018, but most mean scores have decreased (Figure 29). On minimum proficiency and mean scores in literacy and numeracy, PNG's results are below regional averages for the Pacific (World Bank 2020e, 30). In global terms, PNG's learning-adjusted years of schooling are well below average for its income level (Figure 30).

Figure 29. Trends in Basic Proficiency and Mean Scores, PNG

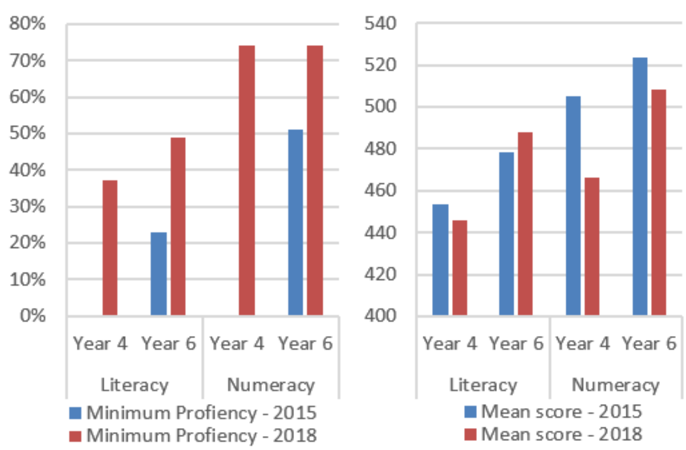
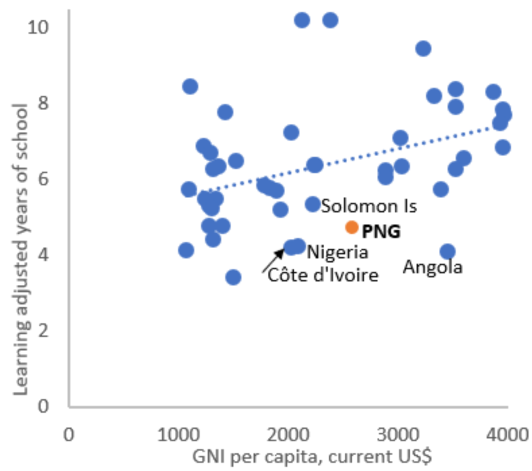


Figure 30. Learning-adjusted School Years, LMICs



Source: Basic education data sheet (year 4 minimum proficiency shares in 2015 are not available); World Bank HCI.

b. The institutional capital of the basic education system

74. The institutional capital of the basic education system depends on partnerships that enable different institutions to jointly provide education. These partnerships involve institutions at local, subnational, national, and international level, among both state and non-state institutions. Church institutions are particularly important in these partnerships: they operate about half of PNG's elementary and primary schools, and over a third of its secondary schools. While each of these partnerships matters to the capability of schools, it is the partnerships between state and non-state institutions at the school level that appear to have overarching importance. After outlining the wider array of state and non-state institutions that contribute to basic education capability, this section focuses on the school level.

75. Multiple state institutions have responsibilities and resources for basic education. Legislation, policy, curriculum, exams and teacher standards come from the national government. So also do the resources for the teaching payroll (covering teachers in both state and church schools) and textbooks. The national government provides funds for school infrastructure development and maintenance to provincial governments and to MPs via Service Improvement Program (SIP) grants. The national government provides funds for school operating costs to schools (state and church). Provincial governments have responsibility for all schools (state and church) operating in their provinces. They exercise these responsibilities through Provincial Education

[26] World Bank staff estimates using NDoE data; NDoE (2019).

Boards (PEBs), which church education authorities are part of. PEBs appoint teachers to established positions, recommend tenure and promotions to the national Teaching Services Commission, and oversee the administration of the teaching payroll. Provincial governments manage school infrastructure development and maintenance, variously through provincial works departments, grants to schools, and grants to church education authorities. They receive specific function grants for these educational responsibilities, and in some cases contribute own-source revenue to the sector too. MPs (both provincial governors and district MPs) have discretion over their SIP funds, a portion of which is intended for school infrastructure.

76. Communities, clans, villages and churches make critical contributions to the provision of education at the local level. They contribute through formal school governance arrangements, informal oversight and accountability, school or project fees, labor and materials, and land for school facilities. Church education authorities also play key roles at multiple levels, overseeing individual church schools, working with PEBs, working with the national department,[27] and partnering with donors. Donor partnerships also exist with multiple tiers of government.[28]

77. The capability of the basic education system comes together at the local level in schools throughout PNG, and these schools have a reasonable degree of autonomy. Schools are arguably the most extensive element of the state's reach in PNG, with greater local presence in remote areas than village courts, health facilities, and roads. They are the sites where the rules, roles, and resources contributed by the different institutions come together, to jointly produce education. Critically, schools have a reasonable degree of autonomy. Although it has undergone changes over time, PNG has operated a facility-based funding model for schools in recent decades. All schools have School Learning and Improvement Plans (SLIPs). These detail enrolments, operations, infrastructure requirements and budgets, providing a basis for the management of school activities for the year. SLIPs are a precondition for the release of operating grants to schools. The staff and operating grants that the state provides come together in schools with the resources individual schools secure from communities, clans, wider church institutions, MPs, and so on. The staff and operating grants from the state enable schools to provide the bare bones of basic education; their ability to secure additional resources from these other sources enables them to augment that.

78. Much of the accountability that exists in PNG for basic education comes from school-level governance arrangements. Alongside rules and roles from the state, schools also draw rules and roles from communities, clans, and wider church institutions. Thereby, the institutional capital of state and non-state institutions contributes to the capability of schools to provide education. Schools boards serve as the lynchpin of these partnerships. They oversee school management and performance. In so doing, they can bring values of trust, integrity and respect from non-state institutions to schools, affecting school management, teaching, finances, and the treatment of school assets. They source funds and other resources for infrastructure development and maintenance from communities, clans, wider church institutions, provincial governments, MPs, donors and so forth. In PNG's highly fragmented and dispersed context, where the possibilities for centralized oversight are so limited, school boards can provide local oversight. This matters not only at the school level, but for school communities to help hold higher tiers of government to account for the responsibilities they are meant to carry out and the resources they are meant to provide. Where the church denomination that schools are part of contains high levels of institutional capital, this benefits its schools (Box 5). Some facility-level surveys find that parents at church schools are more likely than parents at state schools to report that teachers are often or always teaching, teachers are at school on time each day, and that school

[27] Agreements with church providers are negotiated nationally, covering staffing, salaries, infrastructure and equipment.

[28] Donor spending that is captured in the government's expenditure management system varies considerably (in the five years to 2018, it ranged from 0.1 percent to 9.6 percent of total education expenditure). These proportions likely underestimate total donor spending, because much of it occurs off-system.

boards are effective (Howes and others 2014, 162). Whether church schools produce better learning outcomes would require more detailed data than are available for this report.[29]

Box 5. How do school governance arrangements work?
State and church school arrangements differ, but both are integrated into the same state structures

State and church schools are governed by the same legislation, receive the same public resources, and are integrated within a single overall governance framework at provincial level, but there are some important differences in their school governance arrangements. The *National Education Act* 1983 provides overall guidance for appointing school boards, to facilitate community participation in school governance and community ownership of schools. The daily engagement and interest of families with the schools their children attend provides a strong foundation for this governance model.[a] State school boards are appointed by the PEB on the recommendation of parent/community meetings (processes ward councilors often take a lead role in organizing). Church agencies are allowed to determine their own criteria for selecting members of school boards. In the Catholic system, school boards are constituted by parish members, vetted by the parish priest and rotated every three years. Parish priests or their nominees are a mandatory member of all school boards, and can arbitrate on issues of contention among board members and between school boards and school administrations.

School boards have oversight of school performance, with responsibility to make recommendations on principals and teachers, including on disciplinary matters. For state schools, these recommendations go from school boards and school inspectors to the PEB. In the Catholic system, recommendations on principals and teachers go from school boards to the Diocesan Catholic Education Board (DCEB). If endorsed, the DCEB recommends these to the PEB and works to ensure the PEB implements them. Disciplinary matters go from school boards to both the DCEB and PEB. The PEB holds school boards (for governance issues) and principals (for administrative issues, including public financial management) to account, including through the reporting of school inspectors. In the Catholic system, additional accountability is provided by the DCEB, which school boards and principals report to. The DCEB also provides specific training on financial management and reporting, and specific monitoring of public financial management in its schools. The DCEB has a dedicated projects office to source and coordinate funding for Catholic schools, and to manage the infrastructure projects that funds are secured for. Support for the infrastructure work in state schools is arranged at the school level, working with provincial works departments and other stakeholders providing resources.

Land and governance are intertwined in important ways in schools. Church schools are constructed on church land, and as such are recognized as church property. State elementary and primary schools are usually constructed on land under customary ownership, through agreements between landowners and state. Typically, the clan served by the school and whose land the school is on dominates the school board and influences the use of school resources through the principal. At secondary level, where schools usually serve multiple clans and are on state land, it can be challenging to build effective school boards from representatives of the different clans.

a. See Asian Development Bank (2019: 42) on the contrasts in these local relationships between education and health facilities.

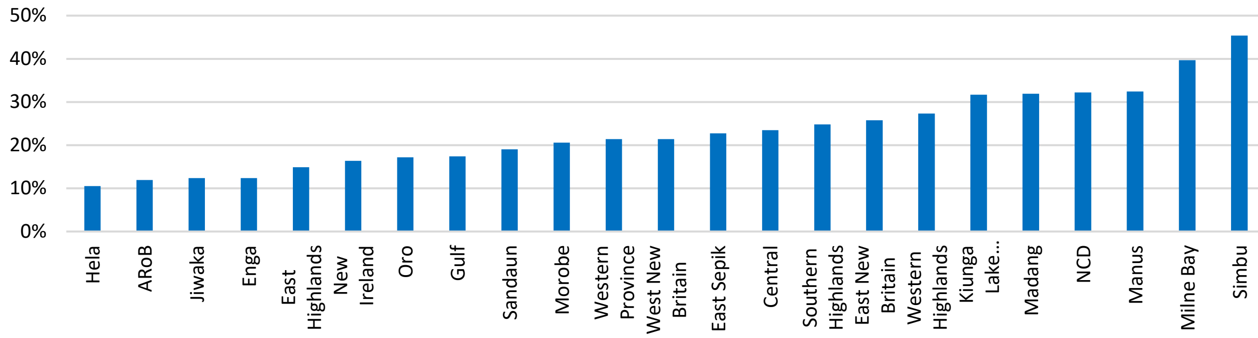
Source: Bopi (forthcoming).

79. The capabilities of schools are affected by how well higher tiers of government carry out their responsibilities and how efficiently they channel resources to schools. The significant educational responsibilities of provincial governments mean they play a critical role, with the varied quality of their contributions explaining some part of the significant geographic variation in educational outcomes in PNG (Figure 31). The more capable PEBs support the effectiveness of principals and teachers through efficient teacher recruitment and placement, efficient payroll administration, and strong oversight of staffing. They support the effective use of public resource through strong oversight of SLIPs and through allocating resources

[29] The data from regional standardized tests for 2018 suggests superior performance of state school students over non-state school students on literacy, and the reverse for numeracy (World Bank 2020e, 30).

according to SLIPs. The most capable provincial governments use efficiency savings from function grants or provide own-source revenues for teacher housing, transport, and even salary supplements to address the critical challenge of attracting and retaining qualified teachers in remote locations. They also enable robust school inspection regimes. (The national government places school inspectors in the provinces, but the extent to which they can do their job largely depends on whether provincial governments provide them with transport and other support.) Regular school inspection supports teaching quality and teacher opportunities, because the inspections feed into PEB recommendations for tenure and promotions). A number of provinces are now responsible for administering and disbursing school operational grants, in place of the national government.[30] In these provinces, provincial capability to administer these grants well and disburse them on time is vital to school operations, and to public perceptions of provincial performance in the critical sphere of basic education.

Figure 31. Provincial Variation in Minimum Proficiency Levels for Literacy in Year 6 (2015 PILNA)



Source: NDoE (2019).

80. The political importance of basic education in PNG also affects school capabilities. The provision of new classrooms typically draws large local crowds, yielding incentives for MPs to invest their SIP funds in these, to strengthen their status as a patron who delivers tangible and highly-valued benefits (Ketan 2007; Allan and Hasnain 2010). Some governors with significant influence at the national level use this to secure national government or donor projects for teacher training or vocational education colleges in their provinces. Unusually among policy issues in PNG, education policy has been a leading part of political platforms over the last decade. Political parties in PNG tend to revolve around personalized patronage relationships between party leaders and members; policy positions have fairly limited relevance within parties or for the formation of governing coalitions (World Bank 2018, 97-105; World Bank forthcoming, a). The Tuition Fee Free (TFF) policy of the People's National Congress party under former Prime Minister O'Neill, is a rare instance of politics in PNG moving beyond what is known as 'elite patronage' to 'mass patronage'.[31] The TFF policy was an important campaign promise, implemented by the O'Neill-Dion government. It was replaced under the Marape-Steven government by an alternative Government Tuition Fee Subsidy (GTFS) policy, involving the reinstatement of a portion of school fees. School fees are important in political debates, including whether campaign promises are met, TFF/GTFS funds reach schools on time, and whether fees are needed to underpin local ownership and accountability for schools.

c. Resilience and opportunities of the basic education system

81. The resilience of the basic education system is crucially dependent on partnerships between state and non-state institutions to jointly provide education. School capabilities depend on rules, roles,

[30] These now include Enga, Eastern Highlands, East Sepik, Morobe, Oro, Milne Bay, East New Britain and New Ireland.
[31] Elite patronage (or clientelism) refers to provisioning pacts between national politicians; mass patronage refers to populist policy commitments under which governing coalitions need to deliver on policies that directly affect voters (as opposed to provisioning political elites who in turn independently provision their support bases) (Van der Walle 2007).

and resources contributed by both state and non-state entities—particularly local communities and church institutions. At the local level, school boards and church education authorities are a critical source of oversight and accountability for school management and performance. They also play a critical role in holding higher tiers of government accountable for the way they perform their roles to support schools. For example, the timely disbursement of TFF/GTFS funds to schools is vital for school operations. The national department provides information to stakeholders on the amount of funds each school is to receive. But how is this transparency translated into accountability? Because institutions like school boards and church education authorities exist with a strong interest in using that information to hold the national or provincial government to account for getting it to their school on time.

82. **The nature of the public funds required is also crucial to the resilience of the basic education system.** The bulk of the public funds required are for payroll (typically 90 percent of recurrent education spending and 80 percent of total education spending). Total education spending is not immune to the wider fiscal volatility associated with PNG's resource dependence, as examined in Part A. But the high priority the government places on the payroll makes it fairly secure. Since principals and teachers in church schools are on the public payroll like their counterparts in state schools, the bulk of funds required by the sector are fairly secure. The reliability of non-salary recurrent funds is supported by the constitutional guarantee of provincial function grants (often delayed, but nearly always paid).[32] It is also supported by the political importance of facility-based TFF/GTFS funds, and the interests of school boards and church institutions in holding government to account for these (delays and less-than-full payment attract considerable media attention).[33] In contrast to the payroll and other recurrent funds flows, the extent to schools benefit from infrastructure funds executed by provinces and MPs is highly variable. Capital inputs are of course not unimportant, but the basic education system has considerable resilience nonetheless, due to the reliable receipt by schools of the bulk of the fiscal resources they require for basic education.

83. **PNG's basic education system has been successful in accommodating significantly more students in recent decades, but it needs to be able to do more to improve the quality of learning.** There are opportunities to do this, by building on its existing institutional capital. This includes learning from and supporting the kinds of school governance arrangements in state and church schools that school results suggest best support teaching and learning quality. Similarly, learning from the stronger education capabilities of some provincial governments, to support improvements in others. The national government could facilitate this learning between state and church school authorities and between provinces. This would build on the strengths of PNG's decentralized basic education system, where school facilities have considerable autonomy and successful innovations can emanate from the local and provincial levels. PNG could also build on the strengths of its facility-based funding approach, by applying it more to capital resources. Such a move would likely be resisted by MPs who are interested in retaining discretionary control over capital funds for education. But small advances may be possible, and could have an important impact. Small increases in the responsibilities and resources of school boards for key aspects of school infrastructure could not only improve the provision and maintenance of that infrastructure, but also strengthen the authority of school boards. That could in turn support wider accountability in the sector.

d. Vulnerabilities and constraints of the basic education system

84. **While the nature of the public funds required for basic education is a key source of resilience, the extent of the funds required poses a vulnerability.** PNG's rapidly growing population means that

[32] Education function grants represent a further 5 percent of total education spending, with actual payments matching budget appropriations very closely (PNG, NEFC 2020).

[33] This is not a complete guarantee that these funds will be prioritized, however. For example, as fiscal constraints increased, TFF resources were only about 85 percent disbursed in 2017 and 2018 (as against full disbursement in 2016).

significantly more payroll resources will be required to maintain student-teacher ratios in primary schools and regain manageable student-teacher ratios in elementary and secondary schools. Given PNG's fiscal situation, this poses a problem: education is already a reasonable share of total spending; it is the total spending envelope that is low, constrained by inadequate revenues. In addition, some aspects of basic education depend heavily on adequate capital funding—for example, science and technology subjects, access to education for girls (toilet and hygiene facilities, and security of boarding arrangements), and remote learning capabilities (as required for education to continue during the COVID-19 lockdowns in 2020). Given the underlying fiscal constraints examined in Part A, securing additional capital resources for education is unlikely in the medium term. This makes the effective use of existing capital resources critical. If school fees are retained to underpin local ownership and accountability for schools,[34] additional resources will need to reach either vulnerable families or school facilities to offset the adverse equity implications of fees.[35] Girls are particularly vulnerable to exclusion. Securing such additional non-salary recurrent resources for education will be a challenge in the medium term.

85. **There are severe constraints on the capability of PNG's institutions to ensure the good use of capital funds.** Capital funds are fragmented between provincial governments, provincial governors and district MPs, among others. Except in the case of provincial governments, recurrent and capital budgets are fragmented. Education infrastructure is meant to account for 20 percent of the SIP funds of provincial governors and district MPs, but they do not have recurrent responsibilities and have little incentive to coordinate their capital spending with those who do. Given the discretionary nature of SIPs and the political importance of basic education, provincial governors and district MPs face strong incentives to direct their funds to classroom construction in the often narrow areas of their electoral base (Wiltshire 2016a). Weak procurement controls limit the likelihood of value-for-money in contracting such work.[36] (Still, those that are built have reasonable prospects of being used, given the fairly straightforward technical specifications of basic classrooms.)

86. **There are also constraints on the capability of PNG's institutions to ensure the good use of some aspects of non-salary recurrent funds.** Where these are retained in aggregate by government—rather than disbursed to facilities—they offer patronage opportunities to those controlling them. Funds for textbooks, for example, have long been retained at the national level, offering a large pool of funds for execution through a small number of high-value contracts. From 2016, TFF funds for infrastructure that were previously disbursed to facilities were redirected to provinces.[37] Resisting the carving off of more elements of facility-based funds for execution by government is important for spending quality and to protect the existing degree of school autonomy that is vital to the overall capability of the education system.

2.3. *Institutional capital for basic health*

a. Basic health institutions and everyday life in PNG

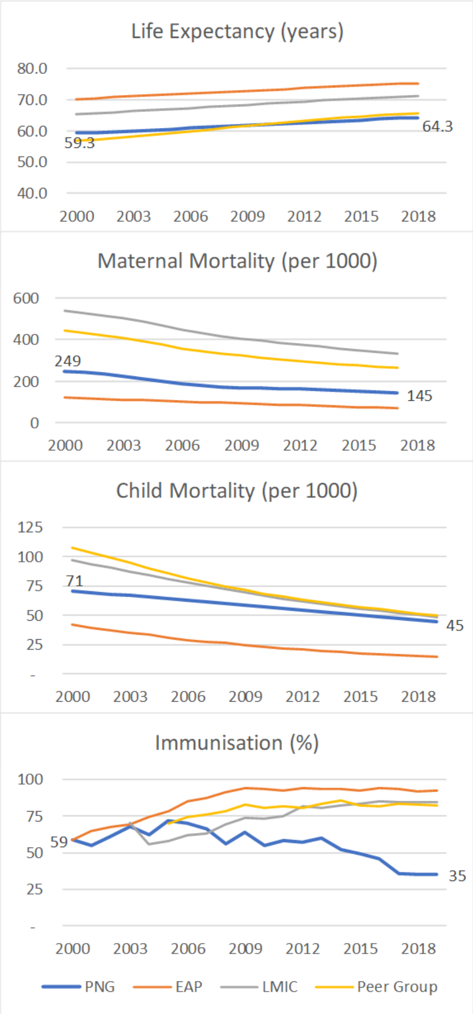
87. **PNG's institutional capital for basic health shares similarities with that for basic education, but also has some key differences.** This study's focus is on basic health services—the preventative and primary care that most Papua New Guineans depend on, on a day-to-day basis, for services and for referrals to higher-level facilities for more complex clinical care. This is not intended to suggest that higher-level facilities are unimportant—on the contrary, the efficacy of care at both levels depends on that at the other. But the focus

[34] Without clear evidence either way (see Walton 2018), there are anecdotal claims that the removal of school fees under the TFF led to local disengagement with schools and damaged accountability relationships between schools and parents. This was a key justification for TFF's replacement by GTFS by the Marape-Stevens government.
[35] School fee debts at the household level are common (UNDP 2020, 33).
[36] There are anecdotal indications that church schools may be less vulnerable to patronage-based volatility in infrastructure funding than state schools. Church education authorities can be sufficiently powerful that they can negotiate with MPs to provide the funds to the church education authority to execute, rather than the MP executing the funds directly.
[37] See Walton and others (2017); Nunn and Nelson (2019). This TFF component was abolished, with the transition to the GTFS.

is on the basic health institutions that dominate the health care of most people, most of the time, affecting their health and well-being, children's learning, and adults' livelihoods. PNG's institutional capital for basic health depends on partnerships between the many institutions, both state and non-state, that jointly provide health services. The challenges of getting these partnerships to work are more pronounced in health than in education. And whereas the nature of the public resources required for education is largely a source of resilience, it poses a key vulnerability for health—a vulnerability starkly illustrated during the COVID-19 crisis in 2020.

88. **In recent decades, PNG's basic health institutions have contributed to improved health outcomes for its rapidly growing population.** Key health indicators have generally improved, but not always—as with immunization (Figure 32), which have fluctuated but declined overall. Health performance in PNG has often improved at a slower rate than the average for LMICs (the gap with LMICs on PNG's historically lower maternal mortality outcomes is closing, and that for its historically lower child mortality outcomes has nearly closed). The same is true for the comparison between PNG and resource-rich peer countries. In addition, while PNG'a immunization rates have fluctuated and then declined, immunization rates in LMICs and resource-rich peers have tended to improve. (Outreach patrols for vaccinations require considerable grasp and reach capabilities. For vaccines, fridges, vehicles or boats, fuel, cash for daily allowances, food and accommodation in villages, to come together in one place at the same time requires coordination across multiple institutions at different levels of government (Wiltshire 2016b).)

Figure 32. Key Health Indicators

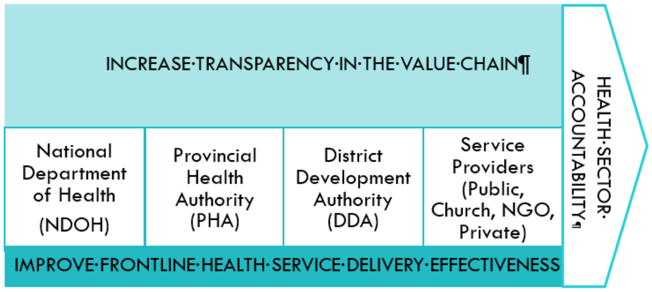


Source: World Bank World Development Indicators.

b. The institutional capital of the basic health system

89. **The institutional capital of the basic health system depends heavily on partnerships that enable different institutions to jointly provide health services.** The capability that comes together in frontline health facilities draws on rules, roles, and resources from entities at local, subnational, national and international level, both state and non-state. They include local communities and churches who oversee, operate or otherwise contribute to local facilities. They include multiple levels of subnational government, with various health-related responsibilities and resources. At the national level, the National Department of Health (NDoH) provides for policy and standards, sector planning, coordination and monitoring, and the procurement and distribution of medical supplies and equipment. NDoH coordinates with church health authorities at the national level. It also coordinates with the range of development partners that provide technical assistance and resources to

Figure 33. Key Health Entities



the health sector. Donors also work directly with subnational government entities and with church health authorities.

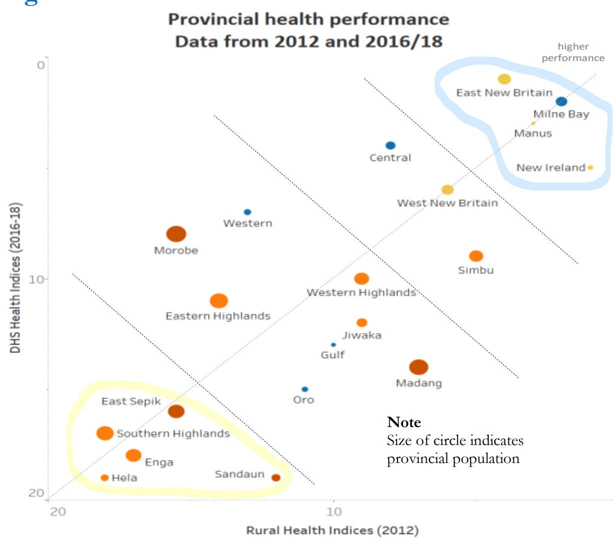
90. Given PNG's highly dispersed and fragmented population, the capability of reach is critical to institutional capital for basic health. Like with village court and basic education, institutional capital for health depends on partnerships and joint provision. Partnerships with church health providers are crucial. The backbone of the basic health system is the network of facilities at the district level and below (including district hospital and health centers, but not including aid posts). Half of these facilities are run by church health providers. This includes facilities in very remote geographic areas, serving hard-to-reach population groups. Previous studies have found church-run facilities to somewhat outperform state-run facilities on particular aspects of patient satisfaction and services. For example, a study concluding in 2012 found higher levels ('very good') of patient satisfaction reported at church-run facilities, but the results evened out when 'very good' and 'adequate' results were added together (Howes and others 2014). A 2017 study found church-run facilities to outperform state-run facilities on the four indices compiled (general services availability, laboratory services availability, readiness, and drugs availability), though the differences were modest except on the laboratory services availability index (Khan and others 2017). In contrast, a 2018 analysis by the World Bank, which created a composite index of performance indicators, found that four of the five higher performing provinces had more state-run facilities than church-run facilities.

91. Institutional fragmentation appears to be more pronounced in the health sector than the education sector, making grasp capability harder to achieve. This is partly due to the greater importance and complexity of non-salary recurrent inputs and capital inputs for basic health services. Vaccines, medicines, other medical supplies, infrastructure, and equipment are all vital to basic health service provision. Supply chains must be coordinated from the international or national level down to the local level. The challenges go even further, however, because supplying health clinics and aid posts is insufficient to reach a significant portion of the population. That requires outreach from these clinics (staff travelling out over one or more days to remote communities). For state-run facilities to do this, they have to coordinate with higher tiers of government for complementary inputs like vehicles, fuel and cash for expenses, since PNG does not operate a facility-based funding model in health. Like education, capital funds are fragmented between institutions, and recurrent and capital budgets are also fragmented. The greater importance and complexity of capital inputs for basic health makes this fragmentation a more significant vulnerability in health. Where SIP funds are directed to health infrastructure, without coordination with health authorities, there are higher risks that the infrastructure will not be useable than in the case of school classrooms. Moreover, for maximum impact on health access and outcomes, health investments need to be coordinated with other sectoral investments (in roads, water and sanitation, for example).

92. To tackle the institutional fragmentation in the health sector, PNG has established PHAs in all provinces to oversee the delivery of health services. PHAs are statutory authorities with administrative and financial responsibility for hospitals as well as primary health services. They are responsible for coordinating state and non-state health service providers. The establishment of PHAs does not of course eliminate institutional fragmentation. Instead, PHAs offer a device to improve coordination between the entities involved. Their success in doing this will be highly dependent on PHAs' effectiveness in building and sustaining partnerships with all the entities that health services in their provinces depend on (local, subnational, national and international entities, both state and non-state). Given the importance of church-run facilities for frontline services, the success of PHAs' partnerships with church health authorities will be critical. PHA Boards and CEOs have a vital role to play in leading and overseeing such partnerships.

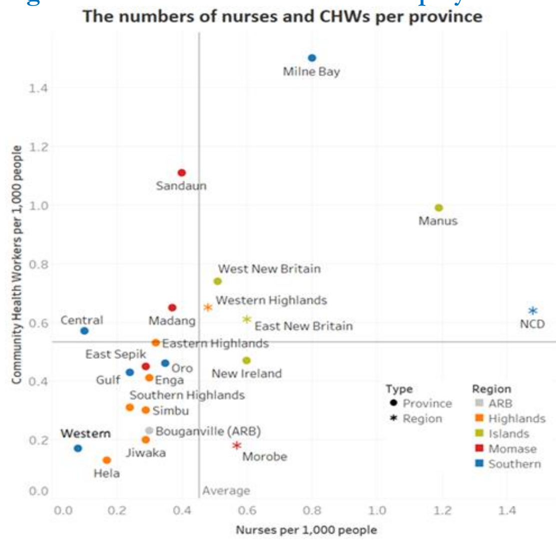
93. PHAs in provinces where health outcomes are weaker face even greater challenges. Many factors other than the capabilities of health institutions affect health outcomes, including socioeconomic status, transport infrastructure, water and sanitation, public security and health education. These factors vary considerably between and within provinces. Recent analytic work by the Bank shows considerable variation in health performance between provinces, including persistent strong and weak performers (Figure 34). The correlation analysis shows that better performing provinces typically enjoy a virtuous circle, with higher numbers of households having improved drinking water, higher male and female attendances at facilities, higher rates of antenatal, delivery and postnatal care, and higher levels of immunization. In contrast, in provinces that are consistently at the lower end of the spectrum, there is lower health seeking behavior. This may be due to lower levels of demand (perhaps signaling access barriers, or adverse perceptions of the quality of services available). There is considerable variation between provinces in the number of nurses and community health workers (CHWs) per 1,000 people; provinces with better health performance tend to be those that deploy proportionately more nurses and CHWs (Figure 35). In addition, there is considerable variation in the costs and volumes of facility-based and outreach services delivered in different provinces (due to underlying geographic factors, or differences in prioritization or efficiency) (World Bank forthcoming, b).

Figure 34. Provincial Health Performance



Source: World Bank (forthcoming, c).

Figure 35. Provincial Health Staff Deployment



Source: World Health Organisation (2020).

c. Resilience and opportunities of the basic health system

94. Partnerships between state and non-state institutions are crucial to PNG's institutional capital for basic health. Church health facilities, for example, draw rules, roles, and resources from the state and from the wider church institutions and church health authorities they are part of. The land and infrastructure for the facility is provided by the church. Churches may source recurrent resources for facilities, to augment those the state funds via grants to church authorities. Church health authorities provide systems and procedures for financial management and reporting. Local church communities and leaders provide facility-level oversight. Users may contribute resources via informal fees. State-run facilities may also draw rules, roles, and resources from local communities (informal oversight by community members, for example, or recurrent resources from informal fees). But state-run health facilities do not have formal community governance arrangements like schools have. The underpinnings of such governance arrangements are not as strong in health, with patients typically visiting facilities intermittently rather than having a daily engagement with them (Asian Development Bank 2019, 42). Although weaker, the underpinnings certainly exist. A health facility that is known to be within reach, open, staffed and stocked is a potentially valuable contributor to community wellbeing on a daily basis, because of the knowledge that it can be relied on when needed. Could governance arrangements for state-run facilities be built, based on such underpinnings? These could perhaps start with groups in communities that have more regular engagement with health facilities —pregnant women and women with young children, for example.

95. The establishment of PHAs offers a new opportunity to support the capabilities of frontline facilities by tackling the fragmentation among the institutions that frontline facilities depend on. PHAs have the mandate to forge agreements with church health providers, provincial governments, and DDAs in order to coordinate health sector planning, budgeting, resource contributions, responsibilities, operations and reporting across the province.[38] To do this successfully, PHAs need to prioritize building and sustaining these partnerships. This includes participating in provincial planning and budgeting processes that affect basic health. For example, the extent to which provincial governments direct their own-source revenues to the construction and maintenance of staff housing is vital to the ability of PHAs to attract and retain skilled health staff at remote facilities. More broadly, provincial roads, water and sanitation programs are critical to health access and outcomes. PHAs also need to try to build partnerships with DDAs, to coordinate their capital spending on health from SIP funds with sector priorities and recurrent funds, and to influence district roads, water and sanitation programs.

96. Forging such partnerships will be an ongoing challenge, given PNG's political context. To secure and coordinate the resources that the health sector needs, PHA Boards and CEOs need to be able to work effectively with provincial governments (governors and administrators) and DDAs (MPs and administrators), even where these institutions struggle to work together directly. PHA Boards are appointed by the minister of health, having consulted with the provincial governor. Like all board appointments in PNG, there is an ever-present risk that appointments will be patronage rather than capability-based. PHAs have some features that may help limit the incursion of patronage. The patronage value of control over them is reasonably limited, because their resources are primarily recurrent and dominated by tightly-restricted function grants, and each PHA Board only controls the resources for one province (rather than there being a national body with aggregate resources to control). In addition, there are a large number of senior medical professionals engaged in them, making misappropriation of funds more likely to encounter whistleblowers.

97. Rich data are now available, which could be used to underpin performance monitoring and learning in the health sector. Disaggregated data on financing, inputs, outputs and outcomes now allows performance monitoring of facilities across districts and authorities (state, and different church denominations). Analysis of these data could yield insights into the factors that support stronger capabilities in different contexts, which could be applied to strengthen capabilities. The key question is, who will use this information to monitor performance and hold different institutions to account? NDoH has this responsibility, and could play an important role in facilitating learning between provinces and between state and church health providers. This would accelerate the uptake of successful approaches developed in specific places or institutions. Beyond NDoH's role, is there a role for communities in performance monitoring, via facility-level governance? Could the institutional capital of church health authorities be used to help translate greater transparency into stronger accountability in the wider health sector?

d. Vulnerabilities and constraints of the basic health system

98. The extent of the public funds required poses a key vulnerability for institutional capital in the health sector. Even though important gains have been made over the last decade, significantly more payroll resources will be required to further improve the ratio of health professionals to population.[39] Given PNG's

[38] At the same time as they coordinate horizontally, within the province, they are the focal point for coordination vertically with national authorities (as part of procurement and supply chains, for instance).

[39] The number of health professionals increased from 0.55 per 1,000 people in 2009 to 1.03 per 1,000 people in 2018, but this is well short of the World Health Organization's benchmark of 4.45 per 1,000 people to achieve universal health coverage (WHO, 2020).

fiscal situation, this poses a problem. Like in education, the constraint is due to inadequate revenues and thus the relatively low overall spending envelope. Thus, PNG's spending on health is both significantly above the average for LMICs as a share of total public spending, and significantly below the average for LMICs as a share of GDP.

99. The nature of the public funds required also poses some key vulnerabilities for institutional capital in the health sector. Payroll is an important component of health spending, but this does not provide the same degree of resilience for health as it does education. This is partly because payroll resources are not as large a share of health resources as they are of education resources. In health, significant non-salary recurrent spending is also vital (for example, medical supplies and transport for outreach services). Capital spending is very important too (for example, medical equipment). Thus, the reliability of the public payroll is far from sufficient for basic health services, if non-salary recurrent spending and capital spending is volatile or unreliable. Some parts of non-salary recurrent spending in health are reasonably reliable, such as function grants for PHAs.[40] Others are less reliable, either because they are subject to delays or non-payment when the fiscal situation is tight, or because they are vulnerable to misuse. For example, large pools of recurrent funds held at national level are executed through a small number of high-value contracts for drug procurement, posing a risk due to the potential patronage value of such procurements. Given the importance of capital inputs to health service provision, the fragmentation of capital funds among different entities, the disconnect between capital and recurrent budgets, and the discretionary control MPs have over SIP funds impose important constraints on basic health capabilities.

100. A further reason why the reliability of the public payroll does not yield the same resilience in health as it does in education is because the staff in the church health sector are not on the public payroll. Their payroll costs are funded via grants from the national government to church health authorities. Like other non-salary recurrent allocations, they are vulnerable to delays when public cash flows are tight, exposing them to the fiscal volatility associated with PNG's resource dependence. In 2020, as fiscal constraints in PNG intensified with the impact of the COVID-19 pandemic, delays in the disbursement of grants to church health authorities extended over several months, leaving church health workers unpaid and funds for operating costs unavailable. This undermined frontline facilities at the height of the health crisis. In 2021, grants to church health authorities have been cut significantly. Overall, the health sector is vulnerable to fiscal volatility because of the importance of non-salary recurrent and capital inputs to health services. The impact of fiscal volatility is amplified in the church health sector, because its payroll depends on grants, so are more like non-salary recurrent funds for volatility. Given the significance of church-run facilities for overall frontline services in PNG, this represents a key vulnerability for the institutional capital of the basic health system as a whole.

2.4. Institutional capital for roads

a. Roads institutions and everyday life in PNG

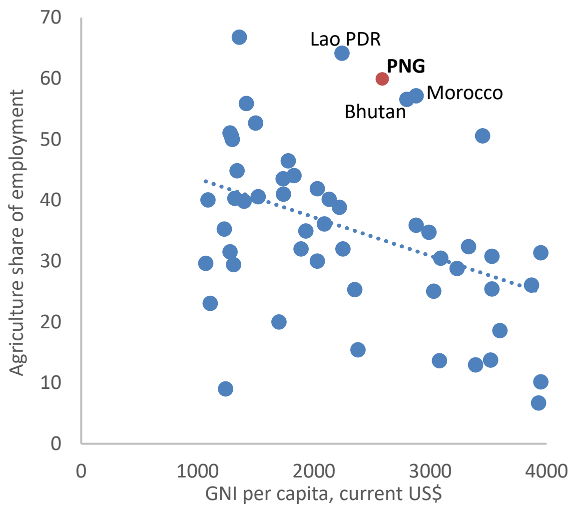
101. In debates about infrastructure and livelihoods in PNG, "Give us the roads and then forget about us!" is a frequent refrain. It reflects a sense that if the government would only ensure that people have passable roads to get to markets, they would be able to do the rest without further need of the government. Roads are, of course, not the only component of transport infrastructure that matters for people's livelihoods

[40] A further source of volatility in some provinces arises from how the formula for function grants interacts with the new institutional setup of PHAs. Function grants are determined by fiscal need, based in part on the own-source revenues of provinces. In some provinces, own-source revenues are sufficiently large that function grants are zero. But the own-source revenues belong to provincial governments (which health function grants used to be paid to, before PHAs were established), not PHAs. In such contexts, PHAs depend on negotiations with provincial governments to benefit from their own-source revenues, in order to secure the equivalent of a function grant.

or their access to basic services: wharves/jetties and airports are important too, especially in remote inland and outer island locations. But the overwhelming importance of roads is undeniable, something that can be best understood when the significance of agriculture to livelihoods in PNG is taken into account (Figure 36). Roads are the most important part of transport infrastructure for agriculture in PNG. Both because of their significance to agricultural livelihoods, and because they exist at the furthest reaches of the transport network—including connecting people to wharves/jetties and airports—roads serve as a particularly important symbol of state capability and reach in PNG. This section focuses on institutional capital for the construction, rehabilitation, and maintenance of roads. The political importance of roads, as well as the nature of the spending involved, significantly affect this institutional capital.

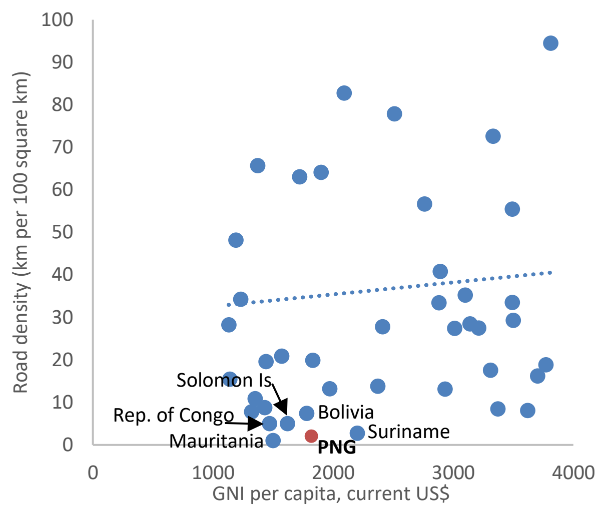
102. PNG presents an enormously challenging context for road infrastructure, even without accounting for the institutional factors that are the focus of this study. These challenges arise from the extreme dispersion and low level of urbanization of the population; the mountainous, riverine and swampland geography of the mainland; the archipelagic geography of the remainder of PNG; and the climatic and geological conditions that generate frequent extreme weather and geological events. As an indication of this challenging context, only one of the 15 mainland provincial capitals (Kerema, in Gulf Province) is connected to Port Moresby by road (Figure 38).[41] PNG's road density is very low compared to other LMICs (Figure 37). Only about 15 percent of the roughly 29,700 km total road network is sealed.[42] Although PNG's per km rehabilitation and maintenance costs may be high in the global context, data suggest that rehabilitation costs are comparable with those in Solomon Islands and below those in Fiji (World Bank 2020e, 36).

Figure 36. Agricultural Livelihoods in PNG vs LMICs



Source: World Development Indicators database.

Figure 37. Road Density in PNG vs LMICs



Sources: CIA World Factbook; World Development Indicators database.

a. The institutional capital for roads

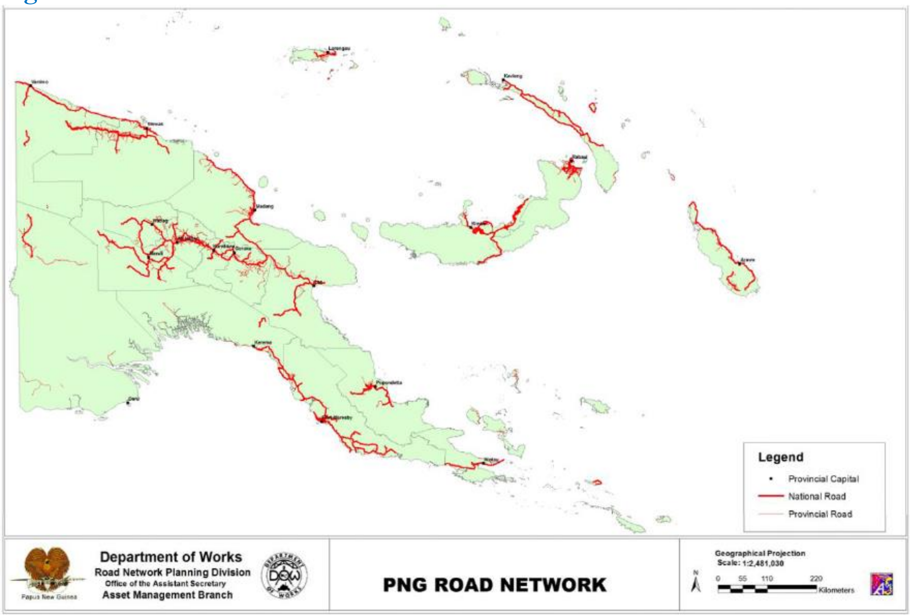
103. PNG's institutions for road construction, rehabilitation and maintenance are highly fragmented. The allocation of mandates for different types or areas of roads to different levels of government occurs in many countries. But in PNG, roads institutions are characterized by unclear and duplicated mandates,

[41] This tally excludes Central Province and the National Capital District, which Port Moresby serves as the capital for.

[42] Sealed roads account for 40 percent of the 8,738km of national roads and 10 percent of the 8,070km of provincial and local roads accounted for in the national road asset management database. The remaining provincial and local roads are not accounted for in that database. See World Bank (2020e, 36).

mismatches of mandates and resources, disconnects between capital and recurrent planning and budgeting, and often fierce political contest. The institutions that have roles and resources tend to lack (effective) rules, constraining the extent of their capabilities to rehabilitate and maintain roads. Unlike in justice, education and health, there is not a durable 'facility' for roads provision at the local level.[43] In these other sectors, village courts, schools and health clinics serve as focal points for the development of local partnership, ownership and accountability relationships. The absence of effective accountability mechanisms in the sector severely constrains the development of the institutional capital needed to rehabilitate and reliably maintain roads.

Figure 38. PNG's Road Network



Source: Department of Works.

104. The institutional setup in the roads sector is both complex and contested. The Department of Works and Implementation (DoWI) is responsible for national roads, which comprise about 30 percent of the total road network.[44] DoWI has deconcentrated units in provincial capitals, to undertake or supervise contractors to undertake works across PNG. Responsibility for provincial and local roads—the remaining 70 percent of the road network—is a mandate of provincial governments and LLGs. Typically, provincial governments have their own works departments to undertake or supervise contractors to undertake works on these roads in the LLG areas that make up the province. In recent years, DDAs have emerged as major actors in roads. Their mandate covers anything pertaining to the development of the district, and they have considerable SIP funds for transport infrastructure. Thus, DDAs are also commonly involved in works on these roads in the LLG areas that make up each district.[45] Given a generous Infrastructure Tax Credits (ITC) scheme,[46] private sector entities also construct what then become public roads. These roads are typically linked to their operations (around palm oil plantations, mines, and petroleum or gas facilities). Development partners are also very active in the sector, funding between 30 and 60 percent of annual work on national roads in the last decade, typically through specific project facilities housed in DoWI (Australia, ODE/DFAT 2018, 24).

[43] In pre-independence times, local authorities generated revenue locally to reinvest in road construction and maintenance, so there were durable facilities (works units) at local level, as a locus for co-production and accountability.
[44] DoWI only recently regained responsibility for maintaining national roads following the abolition of the National Roads Authority (NRA), a special purpose body for road maintenance.
[45] The *Road Management and Fund Act* 2020 has now provided DDAs with responsibility for managing any roads completely within the district, but this is a very recent mandate; DDAs had already emerged as key players in roads before this specific mandate was given.
[46] Whereby tax concessions are given to private companies in return for their spending on (public) infrastructure construction.

105. The nature of roads spending affects the institutional capital that has developed in the sector. In PNG, roads spending is highly vulnerable to political capture. This is due both to what the funds are spent on, and how they are spent. The roads that funds are spent on have considerable political value, in themselves. Since passable roads are both critical and scarce, someone who is able to deliver them generates considerable patronage among those who benefit from those roads. Controlling where—and therefore also to whom—roads are delivered is important to the electoral strategies of political representatives. In PNG, road construction and rehabilitation seem to offer more patronage value with supporters than routine repair and maintenance—probably through their greater visibility, including the groundbreaking ceremonies associated with them.

106. How funds are spent also has considerable patronage value, with greater patronage available from construction and rehabilitation than from maintenance. In contrast to some of the other sectors examined in this study, road works require significant amounts of non-salary recurrent and capital inputs, and relatively small payroll inputs. This is the case for construction, rehabilitation, and maintenance, though the importance of non-salary recurrent and capital inputs is even higher for construction and rehabilitation than it is for maintenance. Public employment of course has potential patronage value, but in PNG the patronage value available from the procurement of non-salary recurrent and capital inputs appears to be higher, perhaps because it can be more readily translated into flows of money.[47] This makes fiscal resources for roads particularly vulnerable to capture. If the higher-level political actors who make decisions between road construction or rehabilitation and road maintenance, and between in-house and procured works, are better placed to secure patronage from spending on construction or rehabilitation than from maintenance, and from spending on procured than in-house works, spending is likely to be skewed toward road construction or rehabilitation by private contractors. Since road construction or rehabilitation can involve the procurement and implementation of a few, high-value contracts controlled at senior levels in higher tiers of government, this is likely to be the case. It is liable to result in contracts in which political leaders or senior officials in higher tiers of government have a beneficial interest. Road maintenance, on the other hand, tends more to many, small-value contracts or to in-house work, controlled at more junior levels in higher tiers of government or in lower tiers of government. The greater potential patronage value of contracted works over in-house works—where payroll and administrative overheads reduce the discretionary funds available—may explain why earlier reforms hollowing out in-house capacity in favor of contracting private firms were embraced so readily in PNG.

107. Contests for control over roads spending have contributed to the institutional fragmentation in the roads sector. At the national level, these contests are over the national roads spending in the PIP (including the donor projects it contains), and the ways funds are spent. At the provincial level, these contests are over the works that are prioritized and the ways funds are spent under the governor's roads program (from provincial SIP funds for transport infrastructure, totaling PGK 66 million annually). They are also over the activities of the provincial works departments (from function grants for the maintenance of transport infrastructure—totaling about PGK 150 million annually—and from provincial own-source revenue). At the district level, the contests are over the works that are prioritized and the ways funds are spent under the DDA's roads program (from district SIP funds for transport infrastructure, totaling PGK 267 million annually). Indirectly, through forgone revenue, the public sector also funds the roads that private companies construct with ITCs, involving contests at the national level over which roads at what valuation can be offset against tax obligations.

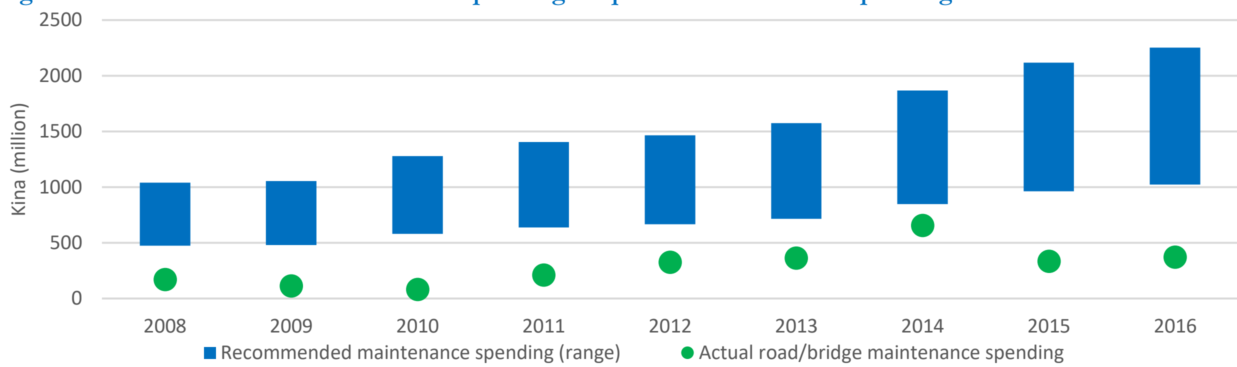
108. Institutional fragmentation contributes to the lack of development of institutional capital in the sector, particularly road maintenance capability. The functional mandate of DDAs for roads has never been clarified. If it is for provincial and local road construction or rehabilitation—as it is commonly interpreted in practice—then there is a clear disconnect between planning and budgeting for capital works (in DDAs) and

[47] See PNG, Auditor-General's Office of PNG (2014, 13).

planning and budgeting for recurrent maintenance (in provincial governments). Provincial governments have a mandate for construction, rehabilitation, and maintenance, but the only transfer they receive—the function grant—is for maintenance. Provinces with own-source revenues have funds they can use for construction, rehabilitation or maintenance, so have the potential to coordinate construction/rehabilitation and maintenance work. Although it may not be consistent with the political strategies of many governors, it is at least plausible for governors' SIP-funded capital works to be coordinated with the maintenance plans of provincial governments. That is not really plausible for DDAs' SIP-funded capital works. DDA structures are dominated by district MPs, with both the institutional setup of DDAs and the funding arrangements for SIPs offering considerable discretion to MPs over what they spend on and how they spend those funds. s, Coordination with other parts of government (such as with the maintenance plans of provincial works departments), would curtail the patronage opportunities of district MPs. Such coordination thus tends to be elusive.

109. Underspending on maintenance reinforces a vicious build-neglect-rebuild cycle that reduces the quality of the road network that can be achieved with a given level of resources. This is because the less maintenance that is done, the higher the consequent road rehabilitation costs, the scarcer the funds available for maintenance. Rehabilitating roads in PNG is estimated to cost multiples of what it would cost to maintain them (Dornan 2014; DoWI 2018, 3). PNG appears to be caught in this vicious cycle of needing to spend more resources and to spend them more frequently on road rehabilitation, at the cost of maintenance. A physical assessment of the condition of national priority roads—4,300km of priority roads within the larger network of national roads—in 2014/15 found 13 percent to be in good condition, 7 percent in fair condition, 21 percent in poor condition and 59 percent in very poor condition.[48] The government's estimate of the condition of roads designated as provincial and local roads is that 64 percent are in poor or failed condition (DoWI 2018, vii). More than 75 percent of national, provincial, and local roads become impassable during the year, and about 80 percent of bridges are structurally deficient (World Bank 2020e, 38). Estimates of the funds required to maintain PNG's existing road network far exceed actual maintenance spending (Figure 39). These estimates also raise the question of whether maintaining PNG's roads (leaving aside the costs of rehabilitation) is an impossible task given the public resource envelope: the mid-point of the government's cost estimates for the required road maintenance (2.4 percent of GDP annually), may exceed the total amount the government spends on road construction, rehabilitation and maintenance.[49] The overall scarcity of resources relative to the task likely intensifies competition for resources among different political actors and the roads institutions they control.

Figure 39. Estimated Road Maintenance Spending Required Versus Actual Spending



Source: DoWI (2018: 2).

[48] This physical assessment was carried out for the Australian Government's Office of Development Effectiveness. Its results contrasted with those in PNG's road condition database (which in 2011 showed approximately 47 percent of roads to be in good condition and 48 percent to be in fair condition, with a steady improvement since 2005). Given the contrast with the results of the physical assessment, the Office of Development Effectiveness concluded that PNG's database was inaccurate. See Australia, ODE/DFAT (2018).
[49] Maintenance cost estimates are from DoWI (2018b: 2); actual spending on road construction and maintenance is from PNG Treasury data, and underestimates spending to the extent that it does not capture SIP funds spent on roads.

b. Resilience and opportunities of the roads system

110. **Identifying sources of resilience and plausible opportunities to strengthen institutional capital for roads is challenging.** As a result of the nature of the resources required for roads, the fragmented institutional structure of the sector, and the wider political economy context, political actors have very strong incentives to retain the status quo of build-neglect-rebuild.

111. **For national roads, there is in theory the possibility that DoWI could coordinate planning and budgeting of capital and recurrent work and could rebalance spending towards maintenance.** But strong political economy dynamics and weak accountability mechanisms continue to see maintenance deprioritized, even where the mandates for road construction, rehabilitation and maintenance are held by a single institution. Moves by some donor partners to fund only the rehabilitation of the existing network may help to avoid worsening the problem by extending the network to be maintained. Adhering to this position will be an ongoing challenge for donors, however, given that they are also subject to pressure to align their programs with PNG's domestic political economy imperatives. Moves to employ life-cycle contracting for project-financed rehabilitation, to include the costs of maintenance in the initial contract, are also promising. Such contracts give incentives for rehabilitation work to be done in a way that minimizes maintenance requirements, and also ensure that the costs of that maintenance are covered. To be effective, the government would have to enforce the contract over the life-cycle of the asset—both while donor oversight continues (during the life of the project), and after it ceases (since donor project-cycles are shorter than asset life-cycles).

112. **For provincial and local roads, donor funds could plausibly be used to provide stronger incentives for maintenance.** The function grant for transport infrastructure maintenance is one source of resilience in the sector, providing a constitutionally-guaranteed flow of funds, linked by formula to the local cost of providing a minimal level of maintenance services. The province of Simbu demonstrates what can be achieved through the effective use of this function grant to keep the road network open to four-wheel drive vehicles year-round. In Simbu, this is achieved by keeping the function grant under very tight administrative control. But function grants are small in the wider scheme of infrastructure funds: district MPs collectively have more than double the value of function grants for transport infrastructure. Matching grants paid to provinces that successfully maintain provincial and local roads could potentially offer very significant incentives, at least to provinces that lack own-source revenue and are dependent on function grants. Could the promise of the reliable provision of passable roads year-round offer a viable political strategy for a governor? The education TFF showed that a clear promise on an item of universal value could garner votes on a policy basis. Roads have similar universal value. If such a political strategy were viable, provision of significant additional resources for road maintenance might both enable a governor to build a functioning works department and provide the incentive for the governor to ensure that it maintains the road network, in order to continue to secure electoral support. Development partners could complement the matching grants with technical assistance to help the provincial works department achieve the technical capability required for reliable road maintenance.

c. Vulnerabilities and constraints of the roads system

113. **The nature of the resources required for roads, the fragmented institutional structure of the sector, and the wider political economy context, severely constrain institutional capital for roads in PNG.** Previous attempts to address these constraints have only served to illustrate their severity. The prime example is the creation and subsequent abolition of the National Roads Authority (NRA). With some strong donor support, the NRA was established to maintain national roads, using the proceeds of a special purpose fund resourced by a fuel levy. The independence of the institutional setup, and funding source that could not be diverted to road construction, were expected to insulate the NRA from the wider political economy context. The resources generated by the fuel levy were inadequate, however. By 2016, the revenue of the road fund was

less than 1.5 percent of total government spending on roads (Dornan 2016, 452). The NRA's insulation from the wider political economy context appeared to be its undoing: political leaders simply channeled the resources under their control to institutions more useful to them. In 2020, the NRA was disestablished and its roles were returned temporarily to DoWI.[50]

2.5. Institutional capital for public revenue

a. Public revenue institutions and everyday life in PNG

114. **This final section of the analysis focuses on institutional capital on the revenue side of the state.** This is important because PNG faces considerable challenges raising public revenue, with critical implications for the fiscal resources the state can provide to public institutions in any sector. It also has implications for the state's ability to build up fiscal buffers, to help manage the external shocks PNG is highly vulnerable to. Grasp and reach capabilities matter to institutions on the revenue side, just as they do on the expenditure side of the state. As on the expenditure side, these capabilities are influenced in critical ways by the wider context in which the institutions operate, as well as by factors internal to the institutions.

115. **The capabilities that revenue-collecting institutions will need in order to collect revenues depend on decisions about who and what the state will collect revenue from.** For example, collecting GST on goods and services transactions across the country requires very different institutional capabilities than collecting duties on imported goods at a handful of designated ports of entry. Decisions about institutional setups for collecting different types of revenue can also have implications for how those revenues will be used. For example, the Internal Revenue Commission (IRC) is empowered to collect personal income tax and must remit it to consolidated revenue, where its use is controlled by parliamentary appropriation. In contrast, the National Fisheries Authority is empowered to collect fisheries access fees and retain them for use in accordance with the priorities set by its board. To take another example, if urban LLGs and city authorities are responsible for collecting property taxes to fund urban roads and other amenities, local property owners who use those roads and amenities may scrutinize urban authority spending very carefully. They may be less likely to do this if urban authorities are funded by grants from the central government.

116. **The wider political economy context affects decisions about who and what the state will collect revenue from and the institutional arrangements for collection.** State theory on political settlements offers an understanding of how that wider political economy context affects such decisions.[51] 'Political settlements' refer to the ways political and economic powerholders come together for the purposes of collective action. This underpins the state and the ways in which it draws in various social and economic actors—with their resources. Different kinds of political settlements are more and less conducive to private actors agreeing to bear a tax or charge on their private resources. Some political settlements—especially in older democracies—are based on long-established political parties representing different sections of the population (for instance, conservatives/business versus social democrats/labor). Other political settlements focus on maintaining the unity of a country,

[50] More recently, the *Road Management and Fund Act* 2020 has made road management the responsibility of 'Roads Authorities', which can be national departments such as DoWI, levels of subnational government such as provinces, and statutory authorities such as DDAs. The PNG Roads Trust Fund will be responsible for allocating funds to such Roads Authorities. Its subsidiary, the PNG Road Maintenance Trust Fund, is to receive funding from a range of sources—including fuel levies and road user charges, as well as drivers licenses and motor vehicle registration (both of which have been important areas of own source revenue for provinces, up until now)—to allocate for road maintenance.

[51] See, in particular, Slater (2010) and Khan (2010).

or the dominance of a particular party or leader, against a perceived threat. These demand that political and economic powerholders sacrifice local, personal and party interests to protect this common good.[52]

117. Some political settlements, including PNG's, depend on the ability of a leading party or individual to draw together a range of very diverse interests, parties and politicians.[53] Especially after elections and during confidence votes in national parliaments, these countries draw together diverse interests by 'provisioning' MPs with resources available at the central level. This enables these MPs to act as patrons in their local areas. This kind of provisioning is not primarily achieved via extending the state's reach to the local level public institutions that delivering services. Instead, it is primarily achieved through the transfer of resources from central to local level under the discretionary control of MPs. In such contexts, there tends to be intense political competition at central level, where the main resources accrue, and a high level of fragmentation of the state all the way down to the local level (Watts 2018). This type of political settlement tends to have profound implications for public revenue. Typically, instead of taxing economic elites significantly and directing these resources to the public administration, political leaders draw resources from them through other channels where these can more readily be used to provision governing coalitions. In return, economic elites can be given preferential treatment in government spending, procurement, and—completing the circle—taxation.

b. Institutional capital for public revenue

118. Institutional arrangements for revenue collection in PNG are highly fragmented, both across and within different levels of government. At the national level, taxes are collected by the IRC and the PNG Customs Service, which are statutory authorities. Fees, fines, charges, and other revenues are collected by a large number of other departments, statutory authorities, parastatal commissions, and state-owned enterprises (SOEs). These revenues include PNG's valuable resource revenues from fisheries, forests, petroleum, and minerals. Dividends are received from SOEs and private companies in which the state holds equity.[54] At the subnational level, provincial governments and LLGs have mandates to collect a range of taxes and other revenues. The dominance of central government is clearly indicated by the fact that provincial revenues are typically equivalent to about 5–6 percent of central government revenues.[55] It is common for provincial governments to establish provincial corporations, and these raise revenues as part of the businesses they conduct.[56] DDAs do not have a mandate to collect taxes, but they do have mandates to charge fees for their services and "do anything incidental to any of its powers."[57] It is also common for DDAs to establish corporations. Some DDAs have been active in seeking to have resource royalties and other public revenues paid to them, rather than to provincial governments, and expressed interest in reviving local head or poll taxes.[58]

119. The extent of revenues raised by PNG's revenue-collecting institutions indicate that their capabilities are fairly weak, overall. Total revenue to GDP (excluding grants) and tax revenue to GDP in PNG are well below the averages for LMICs. PNG's total revenue to GDP (excluding grants) is also well below the average for a set of resource-rich comparators, but its tax revenue to GDP is only slightly below them

[52] These are known as 'protection pacts' and exist in some of PNG's South-East Asian neighbors. They extract revenues from elites in order to maintain the dominant coalition. The conditions required for them do not tend to be found in recently independent, resource-rich states like PNG, however. In these, political elites are able to use other revenues—such as resource revenues—to get the support needed to form a government. See Watts (2018).

[53] For a fuller description of the political settlement in PNG, see World Bank (2018, 97-105) and World Bank (forthcoming, a).

[54] These include a holdings company for the state's equity interests in oil and gas projects, established under specific legislation and registered under the Companies Act, over which the authority of the Public Accounts Committee (PAC) is contested. The National Executive Council (Cabinet) decided in July 2020 that PAC authority does not apply to it. See Pokiton (2019); Sukbat (2020).

[55] This figure is estimated using data from the PNG National Economic and Fiscal Commission (2020) and PNG Treasury.

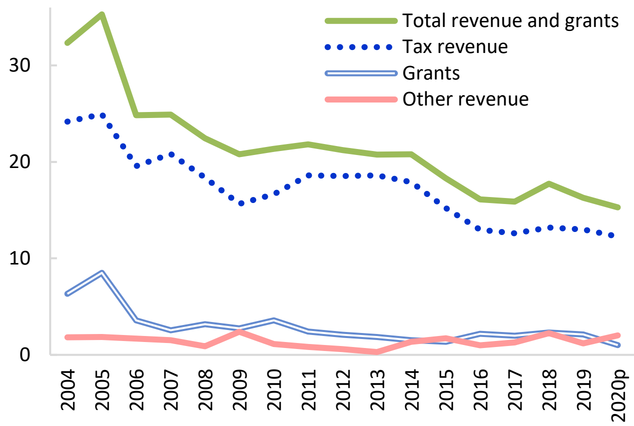
[56] The revenues of provincial corporations do not necessarily exceed their costs, however.

[57] See the Government of Papua New Guinea, District Development Authority Act 2014, page 3.

[58] See, for example, Post Courier (2019).

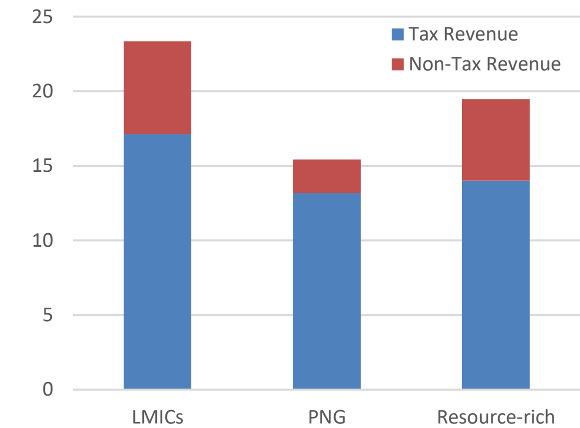
(Figure 41).[59] Concerningly, tax revenue as a share of GDP has been on a generally declining trend over the last two decades, settling at about 13 percent of GDP in the last five years (Figure 40). Internationally, tax revenue below 15 percent of GDP is typically seen as a signal of a state that is having trouble grasping together the resources needed to govern and deliver services. PNG's non-tax revenue has not grown to offset the decline in tax revenue and is well below the average for LMICs and resource-rich comparators.

Figure 40. Revenue and Tax Revenue Collection
(Percent of GDP)



Source: World Bank staff analysis.

Figure 41. PNG Tax Comparisons
(Percent of GDP)



Source: World Bank staff analysis.

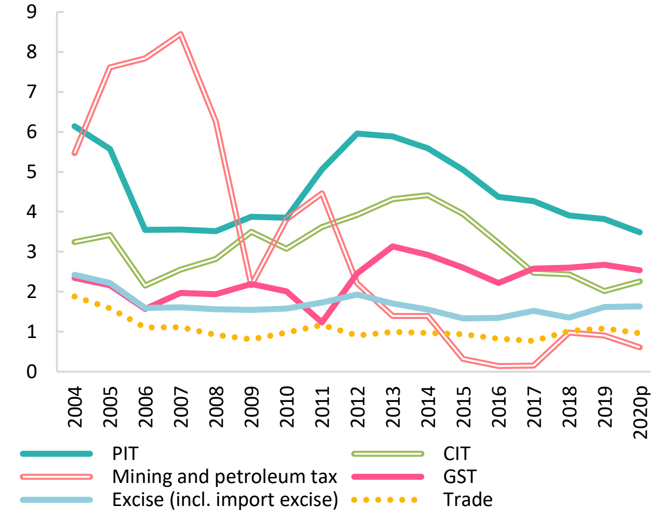
120. **The types of revenues raised by PNG's revenue-collecting institutions indicate that personal income is relatively heavily taxed, while corporate income and goods and services transactions are relatively lightly taxed.** Corporate income tax (CIT) requires sophisticated capability in revenue institutions if corporate tax evasion is to be avoided. PNG's CIT revenue, although volatile, appears to have declined overall over the last two decades (Figure 42). At 2.4 percent of GDP, it is significantly below LMICs (3.8 percent), but only just below resource-rich comparators (2.8 percent) (Figure 43).[60] Personal income tax (PIT) makes quite modest demands on institutional capabilities, if the tax-free threshold is set at a level that means the tax effectively only applies to formal sector workers, as in PNG. PNG's PIT revenue rose sharply in 2011–15 during the construction boom for a major resource project, before declining. Even so, PNG accrues significantly more revenue from PIT (3.9 percent of GDP) than LMICs (2.6 percent) and resource-rich comparators (1.9 percent). Collecting GST requires revenue institutions to have significant reach across the country in order to ensure the tax is implemented in the multitude of sites where goods and services transactions take place. PNG's revenue from GST has been quite volatile, but on a generally increasing trend. At 2.6 percent of GDP, it is far below that in LMICs (5.7 percent) and resource-rich comparators (4.5 percent).[61] The significant declines in CIT and PIT revenue as shares of GDP have been the key drivers of the overall decline in tax to GDP over the last decade.

121. **PNG's resource revenues appear to be very low, at least for on-budget revenues.** Examining resource revenues for insights into institutional capabilities in this area of revenue is challenging in PNG. This is because non-trivial amounts of resource revenues are raised and retained off-budget by statutory authorities, parastatal commissions, and SOEs. It is also because resource revenues accrue in special purpose companies holding state equity in private resource projects. The available data suggest that mining and petroleum tax

[59] The resource rich comparators are Algeria, Cameroon, Colombia, Côte d'Ivoire, Ecuador, El Salvador, Ghana, Honduras, Kenya, Nigeria, Tanzania, and Uganda.
[60] PNG's CIT efficiency ratio is also below the average for resource-rich LMICs (World Bank forthcoming, d).
[61] PNG's GST productivity is very similar to resource-rich LMICs in Africa, but below that of resource-rich LMICs in Latin America (World Bank forthcoming, d).

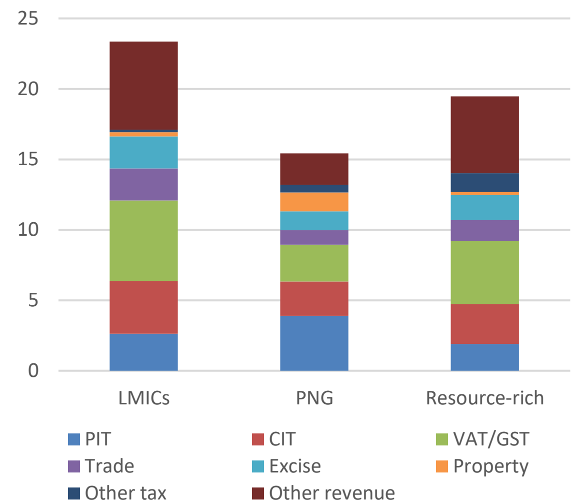
revenue has been very volatile, but on a sharply declining overall trend (Figure 42). To the extent that resource revenues are also reflected in 'other' revenue (that part of total revenue (excluding grants) which is not tax revenue), this has not grown appreciably over the last two decades (Figure 40). It is also well below that in LMICs and resource-rich comparators (Figure 41 and Figure 43). While PNG's capability to raise resource revenues on budget appears to be quite limited, this does not offer insights into its capability to raise off-budget resource revenues.

Figure 42. PNG Revenue Collection by Tax Type
(Percent of GDP)



Source: WB staff analysis.

Figure 43. PNG Tax Mix Comparisons, 2018
(Percent of GDP)



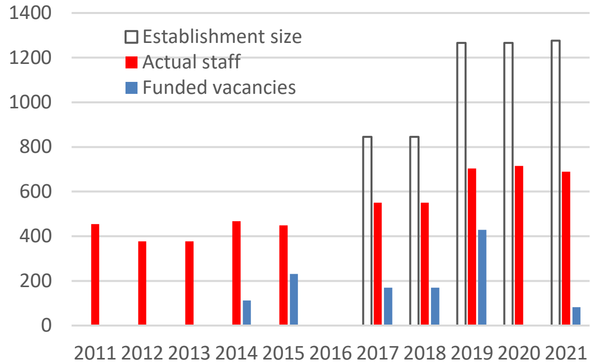
Source: WB staff analysis.

122. **Overall, PNG's limited capabilities to raise on-budget revenue are consistent with an underlying provisioning pact.** Tax collection is quite low overall and is dominated by taxes that are either less demanding of institutional capability or tend to fall less heavily on economic elites. Both are signals of an underlying political settlement that does not favor investing heavily in the capability of revenue institutions or taxing powerful economic actors significantly. (As a partial indicator of investment in the capability of revenue institutions, Figure 44 and Figure 45 indicate staffing trends over the last decade in IRC and Customs, and the gaps between approved establishments and actual staff numbers.)[62]

123. **The fragmentation that characterizes institutional arrangements for public revenue collection probably facilitates provisioning arrangements.** In particular, there is a proliferation of statutory authorities, SOEs, parastatal commissions, and other special purpose bodies in PNG that collect and retain public revenue outside of consolidated revenue. The weaker transparency and public financial management controls applying to such funds make them more readily available for provisioning systems than funds in consolidated revenue. Also of critical importance, PNG has an array of concessions, incentives, special economic zones with tax-free status, and so on, which erode the tax base (World Bank 2018, 38-44; World Bank 2017, 25-37).[63] These practices may also support provisioning arrangements, insofar as political leaders are able to channel the private resources the state foregoes in revenue into provisioning arrangements. In addition, PNG is increasingly holding equity in—in lieu of taxes from—resource companies. Whether or not such equity holdings could potentially yield higher returns for the state than taxes on resource activities, these are not resulting in significant dividends for consolidated revenue under PNG's current governance arrangements for such equity holdings.

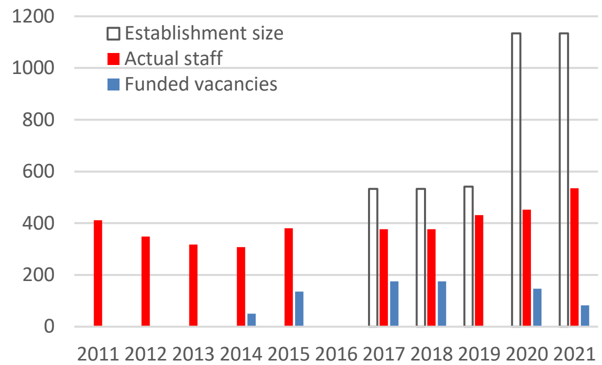
[62] Over the last five years, funding for the IRC has averaged 0.3 percent and for the PNG Customs Service has average 0.2 percent of total agency spending (PNG Budget, various years).
[63] See also Paul Barker's analysis reported in The National (2021).

Figure 44. IRC Staffing



Source: PNG Budget, various years. *Note:* 2016 data unavailable.

Figure 45. PNG Customs Service Staffing



Source: PNG Budget, various years. *Note:* 2016 data unavailable.

c. Resilience and opportunities of revenue institutions

124. **Institutional capital for public revenue is likely to remain highly constrained without a change in PNG's underlying political economy dynamics.** However, it does have some sources of resilience. There are strong cohorts of public officials—including some strong and progressive leaders—in the IRC and some central agencies, who are identifying and attempting to address some of the weaknesses described above. The Public Money Management Regularization Act (2017) sought to oblige all statutory authorities to pay the non-tax revenue they collect into consolidated revenue, and to finance the costs of these statutory authorities from budget appropriations. Following a court ruling in 2020 that this legislation was unconstitutional, the 2021 Budget indicated government plans to introduce a Non-Tax Revenue Administration Bill to achieve the same thing.[64] In recent years, the IRC has started to estimate the value of revenue forgone through a range of tax concession and incentive schemes, publish this information in the budget each year, and formulate legislative and regulatory amendments to reduce these losses. While quantification and transparency will not themselves result in actions to reduce these losses, it is hard to envisage the impetus for change developing in the absence of the dissemination of this information. And some actions are taken (even as new concessions and incentives are opened up). Development partner support can help to augment the capabilities of these cohorts of officials.

125. **The public revenue being forgone from the resources sector is so significant that efforts to address the situation should continue, even though the political economy context is unfavorable to such change.** Leaving aside the political economy context, asymmetries of expertise between PNG's negotiators and multinational resource corporations are such that PNG would be unlikely to be able to negotiate arrangements in its interests. Development partners can provide PNG's officials with access to the technical expertise needed devise equitable agreements. Given the stakes, such offers should continue to be made, even though the prospects of political leaders using such capabilities to improve outcomes are very limited. Development partners can also support global initiatives that strengthen the corporate social responsibilities of resource corporations, and support local civil society actors seeking to improve the accountability of state and corporate actors in the resources sector. Such measures would help to contest current resource sector arrangements in PNG. To provide effective assistance, development partners would have to address the conflicts of interest they may have internally, due to the domicile of the resource corporations engaged in PNG.

126. **A further opportunity exists in IRC's initiative to build partnerships with provincial governments in order to strengthen revenue capabilities.** IRC and provincial governments have a shared interest in GST compliance. The GST is a national tax administered by IRC, but provincial governments receive 60 percent of the GST revenue that IRC derives from their provinces. PNG's GST revenue is low against

[64] See Volume 1 of the 2021 Budget, page 132.

comparators. One constraint IRC faces is its limited reach outside the country's main urban centers. IRC is attempting to address this by increasing its presence and capabilities in smaller urban centers and forging partnerships with provincial governments. Provincial governments have greater local knowledge and reach than IRC, including through their district administrations and their relationships with LLGs. In some cases, provincial governments are contributing provincial staff, non-salary inputs and capital inputs to jointly provide tax administration capability with IRC in their provinces.[65] In addition to increasing GST revenue, improved GST compliance outside the main urban areas could yield valuable information for IRC to gauge economic activity levels and indicate whether other taxes (like CIT) are being evaded in these hard to monitor geographic areas. Partnerships between the IRC and provincial governments offer plausible opportunities to strengthen institutional capital for public revenue. However, they are not a solution to the more fundamental challenge PNG faces with low overall revenues, which is driven by forgone revenue from resource sector agreements and from the country's array of concessions and incentives that affect CIT revenue more broadly.

d. Vulnerabilities and constraints of revenue institutions

127. There are considerable risks to the existing institutional capital PNG has for public revenue. These include the risk of further expansions of concessions, incentives, special economic zones, and deals with resource companies that do not yield a proper return to public revenue. They include the risk of further institutional fragmentation, through the creation of new institutions with control over particular revenue streams outside consolidated revenue or the provision of new revenue powers to institutions that do not currently have them. In particular, there is the risk that DDAs will capture revenue streams of other public institutions or create their own taxes. The current draft of a revised Organic Law on Provincial Governments and Local-Level Governments—which would reform the structure and functions of subnational government—includes district-level governments with revenue powers.[66] Given the little effective oversight of DDAs, MPs' dominance of them (often serving fairly narrow client bases defined by clan), and the rural nature of most constituencies, tax literature would suggest the risk that enforcing district-level taxes in rural contexts could demand a level of coercion (Moore and others 2018). In strongly contested contexts, such coercion may well proceed along political lines.

128. If revenue institutions and the revenue regime are further fragmented, on-budget revenue is likely to continue to decline as a share of GDP—a prospect that should raise very serious concern. PNG's rapid population growth and the significant service delivery challenges it already faces in key sectors underscore the critical importance of raising—not further lowering—public revenue as a share of GDP. The importance of reversing PNG's declining revenue to GDP trajectory is well recognized, but there is a risk that development assistance to tackle this challenge may inadvertently increase the inequity of PNG's tax regime. Given the political economy context, it is likely that development assistance will not be effective in getting the state to tackle the fundamental problem with public revenue: the inadequate revenue being earned from the resource sector. As a result, development partners may focus more on areas that can be addressed—making regimes for GST, PIT, trade taxes, and so forth more effective. If this support is successful and PNG increases its revenue from these sources, while the under-taxation of the resources sector and economic elites more broadly continues or worsens, the overall equity of the revenue regime may decrease. Development assistance in any area of revenue needs to keep this bigger picture in view.

[65] See, for example, IRC (2020).
[66] See Post Courier (2020).

PNG's institutional capital for roads is severely constrained. Photo: Facebook.

3. Key findings and recommendations for strengthening institutional capital

129. **This study uses a capabilities-based institutional capital framework that examines how institutions actually work and their existing capabilities, rather than starting with a good practice model and identifying deficits against that.** The previous section explored the grasp and reach capabilities of institutions in different sectors, and the rules, roles, and resources that underpin these capabilities. Throughout, it highlighted key challenges to grasp and reach in PNG—from the demographic and geographic context, institutional fragmentation, fiscal volatility, and increasingly pervasive patronage systems. It also indicated instances where the equity of distributional outcomes from institutions—by gender, for instance—form key feedback loops that can affect grasp and reach capabilities over time.

130. **The institutional capital framework used in this study recognizes that the capabilities an institution has are a product of factors both within and beyond the institution—in the wider social, economic, geographic, and political context.** The study's approach to recommendations is consistent with that: the focus is on those with potential feasibility in the given context. What in the context should be considered as 'given' depends, of course, on the timeframe in question. Here, the focus is on the medium term (a five-year horizon). We do not expect the nature of the political settlement in PNG to change significantly in that time. Therefore, the recommendations concern actions likely to be amenable to the reach of public policy in that given context.

3.1. Key findings

131. **The key finding of this study is that the capability to deliver basic services in PNG depends on how effectively different state and non-state institutions come together to jointly provide the services.** No single scale or type of institution alone has the rules, roles, and resources needed to develop the requisite grasp and reach capabilities in this extraordinarily challenging context for service delivery. Where

institutional capital for service delivery is greatest, we invariably find sustained partnerships between institutions which allow the rules, roles, and resources of each to join together to enable greater capabilities. This occurs between different tiers of government, and between state and non-state institutions.

132. **Frequently in these joint service provision arrangements, non-state institutions make critical contributions to accountability mechanisms.** These contributions can come from norms and values, financial management processes and oversight, local authority and ownership—including that associated with providing the land for the service facility. This is perhaps not surprising, given that the dominance of patronage relationships in PNG's political system makes the political system unlikely to hold state institutions accountable for service delivery. It is in the nature of patronage relationships that loyalty, rather than capability, is the primary basis for appointments, action, and accountability. For there to be effective accountability for performance and outcomes in service delivery to the public—as opposed to clients or supporters—it may increasingly need to come from non-state institutions.

133. **The contrasts between the sectors examined in this study demonstrate that institutional capital tends to be weaker where the service requires significant amounts of capital spending.** Similarly, vulnerabilities arise where significant amounts of non-salary recurrent spending are executed by a single institution (for example, central drug procurement versus funds for school operating costs that are disbursed to facilities for execution). Resources for capital and non-salary recurrent spending tend to be more volatile and more vulnerable to capture than payroll resources. Services that depend on these types of resources are hampered by not reliably receiving the resources required for the intended purpose (as in roads, for example). In contrast, where the fiscal resources that the service depends on are primarily payroll resources, they do tend to be reliably received (as in village courts and schools, but only partially in health because church health workers are not on the public payroll).

134. **The contrasts between the sectors examined in this study suggest several other common sources of vulnerability for institutional capital.**

- The political importance of the service appears to be a double-edged sword for resource flows. If its political value can be realized through universal delivery, greater political importance can facilitate the reliability of resource flows (as with TFF/GTFS policies in education). If instead its political value can be realized through narrow delivery, greater political importance can intensify the volatility of resource flows (as with roads). Services of lesser political importance may be less vulnerable to political interference, but also less able to secure additional resources in tight fiscal situations (as with the stalled village court expansion).
- The more complex the service, the harder it seems to be to develop institutional capital (for example, a set of capital and non-salary recurrent inputs of particular technical specifications need to come together with the requisite skilled staff for health services to be delivered). This is because coordination and stable commitments of rules, roles, and resources are required from a large number of institutions, which is challenging to achieve in PNG. In contrast, village courts require a much simpler set of inputs, placing lower demands on coordination and commitments.
- Where there are significant divergences in the rules contributed by the different partner institutions, institutional capital is vulnerable. For example, village courts work reasonably well for cases where state rules have a reasonably good fit with the norms of local, non-state authority. They work less well when state rules and non-state authority norms are not mutually reinforcing—as in cases of sexual violence and sorcery, for example.
- Local-level partnerships are increasingly vulnerable to the intrusion of patron-client relationships from higher tiers of government. For example, a village court's authority depends on the extent to which disputants believe its magistrates to be competent and impartial. A school board's effectiveness

depends on its coherence and its ability to work with school principals and provincial education authorities. Patron-client relationships are increasingly reaching down from higher tiers of government into local institutions. Where the allies of higher-level political patrons are elected to village courts or school boards, their authority and coherence can be comprised, weakening their ability to secure local contributions of rules, roles, and resources, and impeding ability to work with tiers of government dominated by rival political patrons.

3.2. Key recommendations

135. **The recommendations build on these findings, suggesting plausible ways to reinforce the strengths and address the weaknesses of institutional capital in the different sectors, given the political economy context.** The recommendations are suggestive, not prescriptive. They indicate the areas that may be most worthy of attention, and provide illustrative examples of measures in these priority areas. Selecting specific measures would require further consideration and dialogue among the local actors who are best placed to advise on and carry through change. Table 7 summarizes the key recommendations discussed below, together with the other recommendations raised in the previous section's analysis of opportunities and vulnerabilities of institutional capital in each sector.

136. **We begin with institutional capital for <u>public revenue</u> because it affects the resources the state can deploy in all other sectors.** The analysis suggests that political leaders in PNG have a strong interest in securing resources for political provisioning, which is the basis of the political system. These interests may be served more readily by channeling public revenue streams into an array of different public bodies, than by maximizing consolidated revenue. They may also be served more readily by forgoing public revenue in return for private contributions to provisioning arrangements, than by maximizing consolidated revenue. As a consequence, the state is not getting an appropriate share of the proceeds from the resource sector, nor from the wider economic activities of economic and political elites. But the bulk of PNG's revenue potential lies in resource revenues and CIT. Until it can realize that potential, the state's service delivery capability will be severely curtailed across the board.

137. **Since the stakes are so high, donors should continue to support PNG to access the expertise needed to negotiate and implement equitable resource agreements.** Similarly, donors should support PNG to access the expertise needed for effective corporate taxation. This expertise is available globally, and without it the asymmetries of technical expertise between a fragile LMIC like PNG and the corporate actors it deals with will remain formidable. While cohorts of officials in key central agencies and revenue institutions may be supported to develop or access such expertise, the nature of PNG's political settlement makes it unlikely that political leaders will make use of this expertise. This recommendation is something of an exception to the approach of focusing on areas where change is plausible in the given political economy context. It is made, however, because there is virtually no possibility of better outcomes without access to such expertise, and because getting more resource and corporate tax revenues into consolidated revenue is foundational for PNG's development. Development partners should complement it with support for corporate social responsibility initiatives, local civil society actors and other measures that would help to contest current resource sector arrangements.

138. **Turning to the spending side of the state, in the area of <u>basic order and justice</u>, PNG's village court system has substantial grasp and reach capabilities and is worth investing in further.** A strong indication of the relevance and capability of village courts is that most people turn to them to deal with everyday disputes and grievances. Their considerable institutional capital is worth building on and improving. The relatively low fiscal cost of the village court system means that even modest investments could yield significant improvements in its capabilities. Funding village courts in each ward in urban LLGs—especially in areas with

many informal settlements—would increase the system's coverage to reflect where people live. It may also help it to resist the intrusion of patron-client relationships linked to higher tiers of government. This is because the more widespread village courts are at the local level, the more directly accessible and observable they are to the people who need to use them. In contrast, the greater the importance of vertical hierarchy—as with village courts that cover wide areas, potentially facilitating the development of a sub-ordinate tier of actors that control access to more distant village courts—the greater the opportunities for patronage relationships.

139. Modest investments to raise the number of magistrates on each village court could increase the representation of women magistrates. Augmenting the weight of women in positions of authority in the village court system, could augment their ability to find workable ways to address challenges of gender inequity in the operations and outcomes of village courts. In part, these inequities reflect the patriarchy within non-state authorities that village courts draw on for their institutional capital. Augmenting the weight of women's authority within village courts could expand the space to mitigate the extent of influence of this patriarchy, in the specific arena of village courts. Both of these investments—in new village courts in unserved areas and in increased numbers of village court officials, particularly women—were begun within the last decade. New village courts were established and new officials were selected. The government's failure to provide the modest resources to complete and sustain these investments is a missed opportunity. The political economy context does not seem to be antagonistic to these developments, but the funding does appear to be an easy source of savings each year. As a result, successive budgets refer to the appointments as temporarily unfunded. The government should address why it continues to not provide these very modest resources to this vital institution.

140. With respect to institutional capital for basic education, the highest priority should be placed on protecting and strengthening the local partnerships between state and non-state actors that underpin school governance and accountability. First, it is important to avoid undermining what is already there, which the progressive carving off of elements of facility-based funding for execution by other tiers of government threatens to do. Instead, maintaining and increasing facility-based funding is essential.

141. Beyond that, the focus should be on identifying and trialling measures to increase the importance and authority of local governance arrangements for schools. Examining the factors that underpin stronger ownership and accountability of schools in some geographic areas or school systems, may provide insights into measures that could strengthen it in areas where it is weaker.[67] Opportunities might also be identified from global education experience with facility-level governance models like school boards. Providing school boards with specific responsibilities that are both important and within their capability, and with the requisite resources to carry them out, tends to strengthen their authority. Could staff housing offer this opportunity in PNG? It is very important and could be within the capability of school boards to manage. It would also benefit from community partnership, because of the inputs communities may need to provide to it and because of the value of increased community ownership of teaching. In addition, it could help to strengthen wider accountability relationships in the sector, since provincial government performance of its roles—for example, disbursing funding and providing basic designs—would be critical to school board success. One risk to be considered is that augmented funding—even if modest—might intensify incentives for higher-level political actors to reach down into school boards through local political allies.

142. While the importance of payroll resources gives the basic education system considerable resilience, reliable access to non-salary recurrent and capital inputs is also needed to support improved learning outcomes and increased access for girls. Facility-based funding and education function grants

[67] If local ownership is strongest in schools in more homogenous contexts (drawing authority from a single clan or church institution, for instance), it may also be worth considering whether there is anything to learn from village courts in heterogenous urban settlement contexts. Perhaps out of necessity, at least some of these have found ways to draw strength from the different 'kastom' of the different communities present in the areas they operate in.

provide reasonably secure non-salary recurrent funds, given their design their transparency, and the established institutions that have an interest in holding higher tiers of government accountable for their provision. In what other ways could counterweights against the volatility or misuse of non-salary recurrent and capital inputs for basic education be strengthened? While the incentives applying to the central procurement of textbooks and to SIP funds for education infrastructure are generally unfavourable, greater transparency has some potential to be utilized for accountability, because of the existence and interests of institutions like school boards and church education authorities. Strengthening the Auditor-General's Office (AGO)—including via advocacy to make its funding independent of the executive—could increase the information that stakeholders have to raise pressure against the misuse of resources. Incremental improvements in the transparency of SIP spending—through publishing the information on SIP expenditure captured in the Integrated Financial Management System (IFMS) or collected by central government agencies from the acquittals that some MPs submit—could likewise help school boards and other stakeholders to raise pressure for their better use. These measures could potentially help to shift political incentives over time.

143. In basic health, it is pivotal for PHAs to build and maintain the partnerships with other institutions that are required to address the fragmentation in the sector. PHAs were established to address this institutional fragmentation, but they will not do so automatically. Instead, they have to operate as a device to improve coordination and commitments across the fragments. This will require them to have Boards and CEOs who can forge and maintain effective partnerships with all the institutions involved—particularly church health authorities, provincial governments, provincial governors, DDAs and NDoH. The very rich data now available in the sector could support learning about the approaches that enable better service delivery performance. But who will use the available information to hold PHAs accountable for their performance? Formally, PHA Boards are accountable to the Minister for Health, so NDoH should play a key role in this respect. Considering both the similarities and contrasts with schools, are there opportunities to support greater local authority and ownership of health facilities, that could strengthen demand and accountability for performance from the local level? Could the monitoring and accountability frameworks used by church health authorities be of value to the wider sector?

144. A second key priority is to address the volatility of resources for health, which poses an ongoing threat to the delivery of frontline services. The health sector is vulnerable to resource volatility, because of its requirements for significant non-salary recurrent and capital inputs. This vulnerability is amplified for church health providers, since their funding—including for payroll for church health workers—comes from central government in the form of grants. This was clearly illustrated in the first half of 2020, when central government grants to church health authorities were delayed by so many months that their health facilities were starting to shut down. It could be evident again in 2021, given the significant reduction in the appropriation for church health grants this year. The merging of church health workers on the public payroll would reduce this vulnerability, but would this benefit outweigh the costs (for example, to church health authorities' autonomy of management of their workforces)? Are there ways to shift political incentives to better align with prioritizing critical resource flows to the health sector, including grants to church health authorities and funds for the timely procurement of medical supplies? Until resource volatility is addressed, the capabilities of health institutions will continue to be undermined.

145. Of the sectors examined in this study, constraints on the development of institutional capital are most severe for roads institutions. These constraints arise from the nature of the resources required for roads, the fragmented institutional structure of the sector, and the wider political economy context. There is little reason to expect these factors to change much over the medium term. Given these constraints, the most plausible source of improvement at the national level is from how donors structure their investments. This is the area of sector where decision-making is most insulated from domestic political economy imperatives. Examples include donors restricting their resources to the rehabilitation and maintenance of the existing network of national roads—not its extension—and moving to life-cycle contracts to decrease maintenance requirements and ensure maintenance costs are funded.

146. At subnational level, the potential weight of donor resources offers the possibility of seeking to shift political incentives towards maintenance—if resources are directed to provincial governments that maintain their road networks. At present, DDAs hold the major share of resources for provincial and local roads. In their current form, DDAs are unlikely to have an interest in or develop the capability to reliably maintain roads across the whole district. Political dynamics are similar at the provincial level: rarely will a governor's political strategy favor road maintenance across the whole province, over road construction and rehabilitation in the particular areas of their electoral base. But at the provincial level, there is some possibility of a critical mass of administration to somewhat counterbalance the governor's power. There is also a prospect of building and sustaining in-house capacity for road maintenance, building on the function grant. Given the relatively small size of the function grant, it may be within the capability of donor partners to offer resources of considerable value to provincial governments that maintain their roads. The relative size of these resources could shift political incentives, potentially making viable a political strategy based on the reliable provision of passable roads year-round. Matching grants based on maintenance outcomes would require accurate, independent verification of road conditions in often remote contexts. Still, technologies to support this are now readily available at relatively low cost, opening opportunities that have not previously existed to influence this very challenging sectoral context.

147. These recommendations focus on the areas that may be most worthy of attention to protect, build on, and strengthen key aspects of PNG's institutional capital. They provide examples of specific measures in these areas that are plausible in the wider political economy context. They also suggest approaches that have some potential to shift or contest the prevailing political incentives over time. There may well be other approaches not considered here that could equally serve the same purposes. It is hoped that the examples suggested will prompt consideration of these and other such possibilities, and garner support for measures with the best potential to strengthen institutional capital in these sectors that are so critical to the wellbeing and livelihoods of people throughout PNG.

Table 7. Summary of Recommendations

Recommendation	Rationale
Public revenue institutions	
Development partners should continue to offer PNG access to global expertise for resource agreement negotiations and implementation, to augment what key cohorts of officials in central agencies and revenue institutions can contribute, even if those institutions are likely to be set aside at critical junctures.	Access to such expertise is necessary for reasonable outcomes to result. It is not sufficient, with political economy dynamics likely to continue to see political leaders setting aside contributions by competent institutions in the negotiation and implementation of resource agreements (and more widely, in decisions on the concessions and incentives that erode the tax base). The stakes are so high that it should be offered anyway; reasonable outcomes will not result without it, and it would be unrealistic to expect that PNG could build and sustain the expertise itself, even if leaders wanted it to.
Development partners should support global initiatives to strengthen the corporate social responsibilities of resource corporations, and local civil society actors seeking to improve accountability in the resources sector.	The political economy dynamics that work against the state getting a proper share of the proceeds of resource activities into consolidated revenue are not likely to change much over the medium term. These measures are simply aimed at increasing the weight of institutions contesting these arrangements, to challenge them as far as possible.
IRC, provincial governments and city authorities should invest in partnerships enabling joint revenue capabilities, particularly for the GST; donors can support such investments.	Particularly given the incentives built into the allocation of GST revenues, these partnerships offer the best prospect for developing the grasp and reach capabilities needed for the GST regime to be effective. Efforts in this area need to occur conscious that the bulk of PNG's revenue potential lies in resource revenues and CIT; increases in other revenues can have only a limited impact on the core problem of low overall revenues.
Efforts should be made to resist the further fragmentation of the revenue regime, via creating new institutions with control over particular revenue streams, or via providing revenue/tax powers to district-level governments.	For as long as district-level governments are heavily dominated by MPs—as is the case with DDAs—the allocation of revenue/tax powers to this level of government would be very risky. In predominantly rural and highly contested constituencies, revenue/tax enforcement could demand a level of coercion and this coercion could well proceed along political lines.
Basic order and justice institutions	
The national government needs to fund the additional courts and magistrates that have already been established and appointed, to complete the earlier expansion of the village court system.	The additional courts are required in as yet unserved areas of urban settlements. Ensuring that all areas have a village court that local people can access and observe directly is likely to support the ability of the institution to resist incursion of politically-linked patronage to some extent. Additional magistrates are required to augment the weight of women's authority within village courts, to increase their ability to address the challenges of gender inequity in ways that may be workable in specific local contexts.
Development partners could support this expansion by providing resources for training and capacity building, particularly to enable the expertise and experience of PNG's most experienced urban and rural mediators to be brought together and shared more widely.	While village court officials typically already have considerable mediation experience and skills, this suggestion reflects an opportunity to better utilize the extraordinary capability of PNG's leading mediators. This promises to be particularly important for new women magistrates, given the fewer opportunities emerging women leaders have typically had for apprenticeship under serving village court magistrates, relative to emerging male leaders.
Basic education institutions	
National and provincial education authorities should prioritize measures to protect and strengthen the local	School boards (reinforced in church schools by church education authorities) appear to be critical not only to accountability at the school level, but also to the extent to which national and provincial governments

partnerships that underpin school governance and accountability.	are held accountable for their roles in basic education. Strengthening their importance and authority is thus critical at a systemic level.
Development partners should continue assistance geared to strengthening the AGO's capabilities and independence, and also continue to advocate and assist with increased transparency of SIP spending.	There are established institutions with an interest in education resources being available reliably and well used. Measures to increase the ability of these institutions to contest the volatility and misuse of resources have the potential to help shift political incentives over time. This context provides the basis for transparency to be translated into accountability, making transparency measures a priority for support.
Basic health institutions	
PHAs need to prioritize building and maintaining partnerships with the key institutions involved in resourcing and providing frontline health services.	Agreements with church providers are vital, to clarify roles and resources and to recognize church providers as partners in basic service provision. For recurrent and capital resources to be coordinated across the sector, PHAs also have to find ways to work effectively with provinces and DDAs.
Consider avenues that could increase local authority and ownership of health facilities, to strengthen local demand and accountability for performance.	Given that PNG's political system mutes incentives for central government to hold actors in any sector accountable for their performance, identifying and supporting institutions with the potential to generate alternative sources of accountability is critical. Church health authorities could offer lessons, as might school boards (though any local governance arrangements in health would need to fit the community level context of health engagement).
NDoH and church health authorities should consider measures to address the volatility of resources available to the sector.	Resource volatility has an amplified impact on church health providers, because their staff are not on the public payroll, so the whole of their funding depends on central government discretion over paying their grants. Would merging church health workers onto the public payroll be beneficial? Beyond measures under the sector's control, are there ways to shift political incentives to better align with prioritizing resource flows to health, perhaps by supporting institutions with interests in contesting non-provision?
Roads institutions	
Development partners should adhere to their joint commitment to fund the rehabilitation and maintenance of the existing national road network, not its extension; and should take further measures to safeguard maintenance work in their investments.	The constraints on institutional capital in roads are so severe that it is unlikely that the capabilities required to reliably maintain roads will be developed using public resources in the medium term. The most feasible prospects for the development of these capabilities appear to be in donor-financed investments, which are more—but by no means fully—insulated from domestic political economy imperatives. These political economy imperatives will still affect the enforcement of contracts after donor projects conclude, however, so unless further mitigation measures can be developed (or project life-cycles extended to match asset life-cycles), expectations should remain modest.
Development partners should consider establishing matching grant arrangements and verification mechanisms, to significantly increase the resources of provincial governments that maintain their roads.	This measure would build on existing function grants and the potential of provincial administrations to develop in-house road maintenance capability, by providing resources sufficient to make viable a political strategy at provincial level based on a platform of ensuring the road network is passable year-round. For example, this might require several multiples of the function grant for road maintenance—at least in the early years when a greater rehabilitation backlog has to be addressed to make maintenance feasible.

Annexes

Annex 1. Selected Economic and Social Indicators

	2016	2017	2018	2019	2020 Est.	2021	2022	2023
						Projections		
National income and prices	*(In percent, unless otherwise indicated)*							
Nominal GDP (US$ billions)	20.8	22.7	24.1	24.8	23.6	25.4	27.3	28.1
Real GDP growth	5.5	3.5	-0.3	5.9	-3.8	3.5	4.2	2.4
Resource sector	10.8	4.5	-3.7	9.3	-5.8	4.3	5.6	1.4
Non-resource economy	2.3	1.5	2.7	2.4	-0.2	1.1	2.0	2.5
Consumer price inflation, period average	6.7	5.4	4.6	3.7	5.3	5.0	5.0	5.0
GDP deflator	2.5	7.7	9.8	0.0	0.9	6.9	5.6	3.1
Real exchange rate change, US$/PGK*	-6.9	1.4	-1.1	-1.0	1.7	0.7	0.4	0.4
Fiscal accounts	*(In percent of GDP, unless otherwise indicated)*							
Revenue and grants	16.1	15.9	17.7	16.3	14.9	15.2	16.0	17.0
Non-resource tax revenue	12.8	12.4	12.2	12.1	11.6	12.0	12.2	13.3
Resource revenue	0.6	0.9	1.8	1.4	0.6	0.9	1.0	1.0
Grants and other revenue	2.7	2.5	3.7	2.8	2.7	2.4	2.8	2.7
Expenditure and net lending	20.9	18.4	20.3	21.2	23.0	22.6	21.3	20.1
Primary expenditure	18.9	16.1	17.9	18.7	20.5	20.1	19.1	17.7
Interest payments	1.9	2.3	2.4	2.6	2.6	2.5	2.2	2.4
Overall fiscal balance	-4.7	-2.5	-2.6	-5.0	-8.1	-7.3	-5.3	-3.2
Non-resource primary balance (% non-extractive GDP)	-4.5	-1.6	-2.7	-5.2	-8.0	-7.6	-5.5	-2.3
Net public debt	34.6	35.9	36.6	39.5	49.0	52.2	53.3	54.3
Gross government debt and guarantees	34.6	35.9	38.2	40.0	49.0	52.2	53.3	54.3
Gross government savings	0.0	0.0	1.5	0.5	0.0	0.0	0.0	0.0
External accounts	*(In millions of U.S. dollars, unless otherwise indicated)*							
Exports, f.o.b., *of which:*	8,202	9,958	10,504	11,402	9,825	10,358	10,885	11,139
Extractive sector	6,730	8,335	8,862	9,965	8,481	8,936	9,404	9,627
Imports, c.i.f.	2,077	3,066	3,519	4,012	3,008	3,672	4,015	4,743
Current account	5,286	5,402	5,676	5,520	5,608	3,683	2,526	1,053
(in percent of GDP)	25.5	23.8	23.5	22.2	23.8	14.5	9.3	3.8
Overall balance of payments	-184	36	517	101	366	264	85	165
Gross official reserves	1,681	1,717	2,235	2,335	2,701	2,965	3,051	3,216
(in months of goods and services imports)	4.3	4.0	4.8	6.6	4.9	4.3	3.8	3.8
(in months of non-extractive imports)	12.0	8.6	9.5	15.5	14.2	14.7	14.3	11.4
Money and credit	*(In percent, unless otherwise indicated)*							
Broad money growth	10.9	-0.9	-3.8	9.6	0.6	8.0	9.2	9.2
Domestic credit growth	24.6	-0.1	-7.9	12.7	6.3	6.2	6.9	6.9
Growth of credit to the private sector	7.2	-3.8	7.4	10.5	2.9	3.2	6.0	8.4
Interest rate of 182-day T-bills, period average	7.4	7.1	7.0	6.5	4.8	4.5	5.7	6.1
Social indicators								
Population, total (millions)	8.3	8.4	8.6	8.8	8.9	9.1	9.3	9.5
Population growth (percent)	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9
Life expectancy at birth (years)	63.7	64.0	64.3	64.4	..	..	..	..

Sources: Official historical data; World Bank staff estimates and projections.
Note: * An increase represents appreciation and a decrease is depreciation.

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